DRAFT EIR

FOR THE

SCHULTE ROAD WAREHOUSE PROJECT
(SCH # 2023120437)

AUGUST 2024

Prepared for:

City of Tracy
Planning Division
333 Civic Center Plaza
Tracy, CA 95376

Prepared by:

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De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

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INTRODUCTION

The City of Tracy has determined that the Schulte Road Warehouse Project is a "Project" within the definition of the California Environmental Quality Act (CEQA). CEQA requires the preparation of an environmental impact report (EIR) prior to approving any project, which may have a significant impact on the environment. For the purposes of CEQA, the term "Project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]).

The EIR contains a description of the Project, description of the environmental setting, identification of Project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of Project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This EIR identifies issues determined to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the Notice of Preparation (NOP) were considered in preparing the analysis in this EIR.

PROJECT DESCRIPTION

The Project site includes two distinct planning boundaries defined below. The following terms are used throughout this Draft EIR to describe the planning boundaries within the Project site:

- **Project Site** (or **Annexation Area**) – totals 21.92 acres and includes: (1) the proposed 20.92-acre Development Area (APN 209-230-250), and (2) the 1.00-acre Williams Communication Parcel along West Schulte Road (APN 209-230-260), which would not be developed as part of the proposed Project.
- **Development Area** – includes a 20.92-acre parcel (APN 209-230-250) that is intended for the development of up to 217,466-square foot (sf) of warehouse and office uses.

The Project would include the construction and subsequent operation of a 217,466-sqare-foot (sf) warehouse building. The 217,466-sf warehouse would include 206,593 sf of warehouse uses and 10,873-sf of office space. The City's General Plan land use designation for the project site is Industrial. Specific uses allowed in the industrial category range from flex/office space to manufacturing to warehousing and distribution. Although the tenants of the proposed warehouse are unknown at this time, this analysis assumes that business operations could occur 24 hours per day. No cold storage facilities or uses will be allowed on-site.

The proposed warehouse would include 31 dock level doors on the eastern side of the building. The maximum height of the one-story warehouse would be 42.6 feet, with the majority of the building at 40 feet. Landscaping would be provided throughout the site.

The principal objective of the proposed Project is the demolition of three single family residences and six ancillary structures and redevelopment of the Development Area with a one-story, 217,466 sf warehouse building and a surface parking lot.

The Project site is designated as Agriculture by San Joaquin County's General Plan Land Use Map and is zoned as AG-40 Agriculture by the County. The site currently has a City General Plan land use designation of Industrial (I). The San Joaquin County Local Agency Formation Commission (LAFCO) will require the Project site to be pre-zoned by the City of Tracy in conjunction with the proposed annexation. The City's pre-zoning will include the Light Industrial (M-1) zoning designation for the Project site. Additionally, the proposed Project would result in the annexation of the Annexation Area into the City of Tracy.

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

This Draft EIR addresses environmental impacts associated with the proposed Project that are known to the City of Tracy, were raised during the NOP process, or raised during preparation of the Draft EIR. This Draft EIR discusses potentially significant impacts associated with aesthetics, agricultural resources, air quality, biological resources, cultural and tribal resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, noise, and transportation and circulation.

The City of Tracy received 10 written comment letters on the NOP for the proposed Project from the agencies listed below. Copies of those NOP comment letters are provided in Appendix A of this Draft EIR. The City also held a public scoping meeting on January 9, 2024. No written or verbal comments were provided at that scoping meeting.

- California Department of Justice (December 20, 2023);
- California Highway Patrol (January 9, 2024);
- Central Valley Regional Water Quality Control Board (January 16, 2024);
- Chevron (January 8, 2024);
- State of California Native American Heritage Commission (December 19, 2023);
- San Joaquin Council of Governments, Inc. (December 14, 2023);
- San Joaquin County environmental Health Department (January 12, 2024);
- San Joaquin Local Agency Formation Commission (December 19, 2023);
- San Joaquin Valley Air Pollution Control District (January 16, 2024);
- San Luis & Delta-Mendota Water Authority (January 11, 2024).

ALTERNATIVES TO THE PROPOSED PROJECT

The CEQA Guidelines require an EIR to describe a reasonable range of alternatives to the Project or to the location of the Project which would reduce or avoid significant impacts, and which could feasibly accomplish the basic objectives of the proposed Project. Three alternatives to the proposed Project were developed based on input from City staff, various outside agencies during the NOP review period, and the technical analysis performed to identify the environmental effects of the proposed Project. The alternatives analyzed in this EIR include the following three alternatives in addition to the proposed Project.

- **No Project (No Build) Alternative**: Under this alternative, development of the Project site would not occur, and the Project site would remain in its current existing condition and not be annexed into the City.
- **Truck Parking Alternative:** Under this alternative, a truck parking facility with truck and trailer parking spaces and restroom facilities would be developed the Project site.
- **Reduced Project Alternative:** Under this alternative, the proposed Project would be developed with the same types of industrial uses as described in the Project Description, but the industrial square footage would decrease by 25 percent and the amount of developed land would decrease by 25 percent.

Alternatives are described in detail in Chapter 5.0. Table ES-1 provides a comparison of the alternatives using a qualitative matrix that compares each alternative relative to the other Project alternatives. As shown in the table, the No Project (No Build) Alternative is the environmentally superior alternative. However, as required by CEQA, when the No Project (No Build) Alternative is the environmentally superior alternative, the environmentally superior alternative among the others must be identified. Therefore, the Truck Parking Alternative and Reduced Project Alternative both rank higher than the proposed Project. The Truck Parking Alternative would have equal impacts in three areas, slightly less impacts in one area, and less impacts in eight areas. The Reduced Project Alternative would have slightly less impacts in six areas and less impacts in five areas. Therefore, the Reduced Project Alternative would be the next environmentally superior alternative. It is noted that the Reduced Project Alternative would not fully meet all of the Project objectives. See Section 5.4 in Chapter 5.0 for a comparative evaluation of the objectives for each alternative.

TABLE ES-1: COMPARISON SUMMARY OF ALTERNATIVES TO THE PROPOSED PROJECT

ENVIRONMENTAL ISSUE	*NO PROJECT (NO BUILD) ALTERNATIVE*	*TRUCK PARKING ALTERNATIVE*	*REDUCED PROJECT ALTERNATIVE*
Aesthetics and Visual Resources	Less (Best)	Slightly Less (2nd Best)	Slightly Less (3rd Best)
Agricultural Resources	Less (Best)	Equal (3rd Best)	Slightly Less (2nd Best)
Air Quality	Less (Best)	Less (2nd Best)	Less (3rd Best)
Biological Resources	Less (Best)	Equal (3rd Best)	Slightly Less (2nd Best)
Cultural and Tribal Resources	Less (Best)	Equal (3rd Best)	Slightly Less (2nd Best)
Geology and Soils	Less (Best)	Less (2nd Best)	Slightly Less (3rd Best)
Greenhouse Gases, Climate Change and Energy	Less (Best)	Less (2nd Best)	Less (3rd Best)
Hazards and Hazardous Materials	Less (Best)	Less (2nd Best)	Slightly Less (3rd Best)
Noise	Less (Best)	Less (2nd Best)	Less (3rd Best)
Transportation and Circulation	Less (Best)	Less (2nd Best)	Less (3rd Best)
Utilities and Service Systems	Less (Best)	Less (2nd Best)	Less (3rd Best)

GREATER = GREATER IMPACT THAN THAT OF THE PROPOSED PROJECT
LESS = LESS IMPACT THAN THAT OF THE PROPOSED PROJECT
EQUAL = NO SUBSTANTIAL CHANGE IN IMPACT FROM THAT OF THE PROPOSED PROJECT

SUMMARY OF IMPACTS AND MITIGATION MEASURES

In accordance with the CEQA Guidelines, this EIR focuses on the significant effects on the environment. The CEQA Guidelines define a significant effect as a substantial adverse change in the physical conditions which exist in the area affected by the proposed Project. A less than significant

effect is one in which there is no long or short-term significant adverse change in environmental conditions. Some impacts are reduced to a less than significant level with the implementation of mitigation measures and/or compliance with regulations.

The environmental impacts of the proposed Project, the impact level of significance prior to mitigation, the proposed mitigation measures and/or adopted policies and standard measures that are already in place to mitigate an impact, and the impact level of significance after mitigation are summarized in Table ES-2.

TABLE ES-2: PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
AESTHETICS AND VISUAL RESOURCES			
Impact 3.1-1: Project implementation may result in substantial adverse effects on scenic vistas and resources.	PS	*None feasible.*	SU
Impact 3.1-2: Project implementation may substantially damage scenic resources within a State Scenic Highway.	LS		--
Impact 3.1-3: In an urbanized area, Project implementation would not conflict with the applicable zoning and other regulations governing scenic quality.	LS		--
Impact 3.1-3: Project implementation may result in light and glare impacts.	LS		--
AGRICULTURAL RESOURCES			
Impact 3.2-1: The proposed Project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses.	PS		SU
Impact 3.2-2: The proposed Project would not conflict with existing zoning for agricultural use, or Williamson Act Contracts.	LS		--

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *B – beneficial impact* *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
Impact 3.2-3: The proposed Project would not involve other changes in the environment which, due to their location or nature, could result in conversion of adjacent agricultural Farmland, to non-agricultural use or conversion of forest land to non-forest use.	LS		--
AIR QUALITY			
Impact 3.3-1: Project operation would not conflict or obstruct implementation of the District's air quality plan.	LS		--
Impact 3.3-2: The proposed Project would not result in a cumulatively considerable net increase of a criteria pollutant for which the region is in nonattainment under an applicable federal or State ambient air quality standard.	LS		--
Impact 3.3-3: The proposed Project would not expose sensitive receptors to substantial pollutant concentrations.	LS		--
Impact 3.3-4: The proposed Project would not cause exposure to other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LS		--
BIOLOGICAL RESOURCES			
Impact 3.4-1: The proposed Project has the potential to have a direct or indirect effect on special-status invertebrate species.	PS	***Mitigation Measure 3.4-1****: Prior to commencement of any grading activities, the Project proponent shall obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species. Coverage involves compensation for habitat impacts on covered species through implementation of incidental take and minimization Measures*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		(ITMMs) and payment of fees for conversion of lands that may provide habitat for covered special status species. These fees are used to preserve and/or create habitat in preserves to be managed in perpetuity. Obtaining coverage for a Project includes incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species.	
Impact 3.4-2: The proposed Project has the potential to have direct or indirect effects on special-status reptile and amphibian species.	PS	*Implement* ***Mitigation Measure 3.4-1.***	LS
Impact 3.4-3: The proposed Project has the potential to have direct or indirect effects on special-status bird species.	PS	*Implement* ***Mitigation Measure 3.4-1.***	LS
Impact 3.4-4: The proposed Project has the potential to result in direct or indirect effects on special-status mammal species.	PS	*Implement* ***Mitigation Measure 3.4-1.***	LS
Impact 3.4-5: The proposed Project has the potential for direct or indirect effects on candidate, sensitive, or special-status plant species.	LS		--
Impact 3.4-6: The proposed Project has the potential to effect protected wetlands and jurisdictional waters.	NI		--
Impact 3.4-7: The proposed Project has the potential to result in adverse effects on riparian habitat or a sensitive natural community.	NI		--
Impact 3.4-8: The proposed Project has the potential to result in interference with the	LS		--

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites.			
Impact 3.4-9: The proposed Project has the potential to conflict with an adopted Habitat Conservation Plan.	PS	*Implement* ***Mitigation Measure 3.4-1.***	LS
Impact 3.4-10: The proposed Project has the potential to conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	NI		--
CULTURAL AND TRIBAL RESOURCES			
Impact 3.5-1: Project implementation has the potential to cause a substantial adverse change to a significant historical resource, as defined in CEQA Guidelines §15064.5.	PS	***Mitigation Measure 3.5-1:*** *Prior to the demolition of the existing residential structures, a comprehensive evaluation of the structures shall be conducted to identify and document any aspects of historical significance. This evaluation shall be carried out by qualified professionals in cultural resources management or historic preservation, in accordance with the standards of the California Office of Historic Preservation. The assessment shall include, but not be limited to, an examination of architectural features, historical records, oral histories, and any other relevant sources of information to determine the historical significance of the residential structures. The findings from the assessment shall be recorded and documented in accordance with the standards set forth by the California Office of Historic Preservation. This documentation shall be submitted to the City of Tracy Community Development Department for review and approval prior to the issuance of any permits for demolition.* *In the event that significant historical or cultural resources are identified, appropriate measures shall be implemented in consultation with the project applicant to mitigate any adverse impacts to these resources to the extent feasible. The applicant shall submit a final report summarizing the implementation of this mitigation measure, including any findings,*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		documentation, and compliance verification activities, to the City of Tracy Community Development Department for cultural resources management. ***Mitigation Measure 3.5-2:*** *If any historical resources, cultural resources, including prehistoric or historic artifacts, or other indications of archaeological resources, are found during grading and construction activities during any phase of the Project, all work shall be halted immediately within a 200-foot radius of the discovery until an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, has evaluated the find(s).* *Work shall not continue at the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially significant or eligible for listing on the NRHP or CRHR; or 3) not a significant Public Trust Resource.* *In addition, if the resource(s) identified is cultural or tribal in nature, the Confederated Villages of Lisjan shall be contacted to review and identify the resource, prior to work continuing at the discovery site.* *If Native American resources are identified, a Native American monitor, following the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites established by the Native American Heritage Commission, would also be required and, if Native American resources are identified, shall be retained at the Project applicant's expense.*	
Impact 3.5-2: Project implementation has the potential to cause a substantial adverse change to a significant archaeological resource, as defined in CEQA Guidelines §15064.5, or a significant tribal cultural resource, as defined in Public Resources Code §21074.	PS	*Implement* ***Mitigation Measure 3.5-2.*** ***Mitigation Measure 3.5-3:*** *If human remains are discovered during the course of construction during any phase of the Project, work shall be halted at the site and at any nearby area reasonably suspected to overlie adjacent human remains until the San Joaquin County Coroner has been informed and has determined that no investigation of the cause of death is required. If the remains are of Native American origin, either of the following steps will be taken:*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		• *The coroner shall contact the Native American Heritage Commission and the Confederated Villages of Lisjan in order to ascertain the Most Likely Descendant (MLD) from the deceased individual. If a MLD is identified, the MLD, with the permission of the owner of the land, or his or her authorized representative, in accordance with the law, may inspect the site discovery site and recommend to the landowner, or his or her representative, means for the treatment or disposition, with appropriate dignity' of the human remains and any associated grave goods. The landowner has no legal obligation to allow the MLD accesses to the property for the purpose of making a recommendation. The MLD must complete their inspection and make their recommendation within 48 hours of their notification by the NAHC. The recommendation may include the scientific removal and analysis of human remains and items associated with Native American burials. The coroner shall make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, which may include obtaining a qualified archaeologist or team of archaeologists to properly excavate the human remains.* • *The landowner shall retain a Native American monitor, and an archaeologist, if recommended by the Native American monitor, and rebury the Native American human remains and any associated grave goods, with appropriate dignity, on the property and in a location that is not subject to further subsurface disturbance when any of the following conditions occurs:* o *The Native American Heritage Commission and Confederated Villages of Lisjan is unable to identify a descendent.* o *The descendant identified fails to make a recommendation.* o *The City of Tracy or its authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.*	
Impact 3.5-3: Project implementation has the potential to disturb human remains, including those interred outside of formal cemeteries.	PS	*Implement* ***Mitigation Measure 3.5-3.***	LS

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PS – potentially significant *B – beneficial impact* *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
GEOLOGY AND SOILS			
Impact 3.6-1: The proposed Project would not cause substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, strong seismic ground shaking, seismic related ground failure (including liquefaction), or landslides.	LS		--
Impact 3.6-2: Implementation and construction of the proposed Project has the potential to result in substantial soil erosion or the loss of topsoil.	LS		--
Impact 3.6-3: The proposed Project has the potential to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of Project implementation, and potentially result in landslide, lateral spreading, subsidence, liquefaction or collapse.	PS	***Mitigation Measure 3.6-1****: All site preparation, grading operations, and construction design shall be conducted in conformance with the recommendations included in the Preliminary Geotechnical Engineering Study – Proposed New One- Story Warehouse Building, 16286 W. Schulte Road [APN: 209-280-250], Tracy, California (Condor Earth Technologies, Inc., 2020). Specific recommendations in the Geotechnical Engineering Report generally address the following:* 1. *General grading and site preparation;* 2. *Overexcavation;* 3. *Subgrade Preparation;* 4. *Fill materials;* 5. *Engineered fill placement;* 6. *Lime treatment;* 7. *Excavations;* 8. *Earthwork shrinkage;* 9. *Underground utility trenches;* 10. *Surface drainage control;* 11. *General foundation;* 12. *Shallow foundation design*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		13. Lateral resistance; *14. Construction considerations;* *15. Interior concrete slabs;* *16. Exterior concrete slabs;* *17. Retaining walls;* *18. Pavements;* 19. *Corrosion potential.* *Additional site testing and final design evaluation shall be conducted by the Project Geotechnical Consultant to refine and enhance these requirements as part of a final Geotechnical Evaluation. The Project Applicant/Developer shall require the Project Geotechnical Consultant to assess whether the requirements in that report need to be modified or refined to address any changes in the Project features that occur prior to the start of grading. If the Project Geotechnical Consultant identifies modifications or refinements to the requirements, the Project Applicant/Developer shall require appropriate changes to the final Project design and specifications. These requirements shall be incorporated into the final Geotechnical Evaluation.*	
Impact 3.6-4: The proposed Project has the potential for expansive soils to create substantial risks to life or property.	PS	*Implement* ***Mitigation Measure 3.6-1.***	LS
Impact 3.6-5 The proposed Project has the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	PS	***Mitigation Measure 3.6-2:*** *If any paleontological resources are found during grading and construction activities of the Project, all work shall be halted immediately within a 200-foot radius of the discovery until a qualified paleontologist has evaluated the find. A paleontologist is a scientist with an advanced degree (Master's or Doctorate) who studies the history of life on Earth through the fossil record.* *Work shall not continue at the discovery site until the paleontologist evaluates the find and makes a determination regarding the significance of the resource and identifies recommendations for conservation of the resource, including preserving in place or relocating on the Project site, if feasible, or collecting the resource to the extent feasible and*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		documenting the find with the University of California Museum of Paleontology. The paleontologist recommendations shall be implemented.	
GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY			
Impact 3.7-1: Project implementation would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	LS		--
HAZARDS AND HAZARDOUS MATERIALS			
Impact 3.8-1: Potential to create a significant hazard through the routine transport, use, or disposal of hazardous materials or through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	PS	***Mitigation Measure 3.8-1****: In the event that hazardous materials are encountered during construction, a Soils Management Plan (SMP) shall be submitted and approved by the San Joaquin County Department of Environmental Health. The SMP shall establish management practices for handling hazardous materials, including fuels, paints, cleaners, solvents, etc., during construction. The approved SMP shall be posted and maintained onsite during construction activities and all construction personnel shall acknowledge that they have reviewed and understand the plan.* ***Mitigation Measure 3.8-2****: Prior to bringing hazardous materials onsite, the applicant shall submit a Hazardous Materials Business Plan (HMBP) to San Joaquin County Environmental Health Department (CUPA) for review and approval. If during the construction process the applicant or its subcontractors generates hazardous waste, the applicant must register with the CUPA as a generator of hazardous waste, obtain an EPA ID# and accumulate, ship and dispose of the hazardous waste per Health and Safety Code Ch. 6.5. (California Hazardous Waste Control Law).* ***Mitigation Measure 3.8-3****: Prior to the issuance of grading permits, the applicant shall hire a qualified consultant to perform site-specific soil sampling to determine if chemicals of potential concern associated with the historical agricultural uses at the Project site are*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		present in shallow soil at concentrations that would pose a threat to human health. In order to achieve this, a soil sampling and analysis workplan shall be submitted for approval by the San Joaquin County Department of Environmental Health prior to the work. The sampling and analysis plan shall meet the requirements of the Department of Toxic Substances Control Interim Guidance for Sampling Agricultural Properties (2008). *If the sampling results indicate the presence of agrichemicals that exceed commercial screening levels, a removal action workplan shall be prepared in coordination with San Joaquin County Department of Environmental Health. The removal action workplan shall include a detailed engineering plan for conducting the removal action, a description of the onsite contamination, the goals to be achieved by the removal action, and any alternative removal options that were considered and rejected and the basis for that rejection. A no further action letter shall be issued by San Joaquin County Department of Environmental Health upon completion of the removal action. The removal action shall be deemed complete when the confirmation samples exhibit concentrations below the commercial screening levels, which will be established by the agencies.* ***Mitigation Measure 3.8-4****: Prior to the issuance of grading permits or demolition permits, the septic tank shall be abandoned and removed under permit from the San Joaquin County Department of Environmental Health.* ***Mitigation Measure 3.8-5****: Prior to ground disturbing activities, the applicant shall ensure that all debris/miscellaneous nonhazardous solid waste observed at the site during the Phase 1 Environmental Site Assessment be collected and disposed at an appropriate Solid Waste/Landfill facility.* ***Mitigation Measure 3.8-6****: Prior to any renovations or demolition of the existing structures within the Project site, surveys shall be conducted for the presence of lead-based paints or products, radon, mold, asbestos containing materials, as recommended by the Phase I ESA (dated November 4, 2020) prepared by ATC for the West Schulte Road property. The intent of the additional testing is to investigate whether any buildings, facilities, or soils contain hazardous materials, including petroleum products, agrichemical (including pesticides, herbicides, diesel, petrochemicals, etc.), asbestos, etc.*	

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		If asbestos-containing materials and/or lead are found in buildings, an Operations and Maintenance (O&M) Program shall be implemented in order to safely manage the suspect ACMs and LBP located at the subject property, and a California Occupational Safety and Health Administration (Cal/OSHA) certified asbestos containing building materials (ACBM) and lead based paint contractor shall be retained to remove the asbestos-containing materials and lead in accordance with EPA and Cal/OSHA standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal/OSHA asbestos and lead worker construction standards. The ACBM and lead shall be disposed of properly at an appropriate offsite disposal facility. ***Mitigation Measure 3.8-7****: Prior to any ground disturbance activities within 50 feet of a well on the Project site, the applicant shall hire a licensed well contractor to obtain a well destruction permit for any wells to be abandoned from the San Joaquin County Environmental Health Department, and properly abandon the on-site well(s) Any related subsurface piping, pursuant to review and approval by the City Engineer and the San Joaquin County Environmental Health Department.*	
Impact 3.8-2: Is the Project located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, the Project could create a significant hazard to the public or the environment.	NI		--
NOISE			
Impact 3.9-1: The proposed Project has the potential to generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	PS	***Mitigation Measure 3.9-1:*** *To reduce potential construction noise impacts during Project construction, the following multi-part mitigation measure shall be implemented for the Project:* • *All construction equipment powered by internal combustion engines shall be properly muffled and maintained.* • *Quiet construction equipment, particularly air compressors, shall be selected whenever possible.*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		• *All stationary noise-generating construction equipment such as generators or air compressors shall be located as far as is practical from existing residences. In addition, the Project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site.* • *Unnecessary idling of internal combustion engines shall be prohibited.* • *The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction.* • *Construction shall be limited to 7:00 a.m. to 10:00 p.m.* • *Staging areas on the Project site shall be located in areas that maximize, to the extent feasible, the distance between staging activity and sensitive receptors.* *These requirements shall be noted on the Project improvement plans*.	
Impact 3.9-2: The proposed Project would not generate excessive groundborne vibration or groundborne noise levels.	LS		--
TRANSPORTATION AND CIRCULATION			
Impact 3.10-1: Project implementation would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	PS	***Mitigation Measure 3.13-1:*** *Prior to commencement of any operational activities, the project proponent shall implement either "Option 1" or "Option 2", as provided in the CEQA Transportation Analysis prepared by Kimley Horn on July 22, 2022. "Option 1" includes a combination of TDM measures plus a VMT Mitigation Banking Fee for the Project to achieve 15% VMT reductions (assuming the VMT Mitigation Banking Fee Program is adopted by the time the proposed project is ready to apply for permits). Alternatively, as described under "Option 2", if the VMT Mitigation Banking Fee Program is not adopted at the time the proposed project is ready to apply for permits), the proposed project would be required to provide TDM measures that fully reduce the VMT by 15%. See Table 2 of the CEQA Transportation Analysis prepared by Kimley Horn for the proposed list of TDM measures under this option.*	SU

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		The TDM Plan shall be submitted to the City for review prior to approval of improvement plans, and the effectiveness of the TDM Plan shall be evaluated, monitored, and revised, if determined necessary by the City. The TDM Plan shall include the TDM strategies that will be implemented during the lifetime of the proposed Project and shall outline the anticipated effectiveness of the strategies. The anticipated effectiveness of the TDM Plan may be monitored through annual surveys to determine employee travel mode split and travel distance for home-based work trips, and/or the implementation of technology to determine the amount of traffic generated by and home-based work miles traveled by employees, which shall be determined in coordination with the City. The frequency and duration of the anticipated effectiveness would depend on the ultimate strategy determined in coordination with the City. Additionally, the Project applicant shall pay any VMT banking fee in effect at the time of building permit issuance to secure VMT credits of a total of 15 percent for the subject building, taking into account the stated percent efficacy for the TDM measures above.	
Impact 3.10-2: Project implementation would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	LS		--
Impact 3.10-3: Project implementation would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	LS		--
Impact 3.10-4: Project implementation would not result in inadequate emergency access.	LS		--
UTILITIES AND SERVICE SYSTEMS			
Impact 3.11-1: The proposed project does not have the potential to result in a determination by	LS		--

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
the wastewater treatment and/or collection provider which serves the project that the provider does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.			
Impact 3.11-2: The proposed Project has the potential to require or result in the construction of new wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LS		--
Impact 3.11-3: The proposed Project has the potential to require construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LS		--
Impact 3.11-4: The proposed Project has the potential to have insufficient water supplies available to serve the Project from existing entitlements and resources.	LS		--
Impact 3.11-5: The proposed Project has the potential to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	PS	***Mitigation Measure 3.11-1:*** *Prior to the issuance of a building or grading permit, the Project applicant shall submit a drainage plan to the City of Tracy for review and approval. The plan shall include an engineered storm drainage plan that demonstrates attainment of pre-Project runoff requirements prior to release at the outlet canal and describes the volume reduction measures and treatment controls used to reach attainment consistent with the Citywide Storm Drainage Master Plan.*	LS

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CUMULATIVE IMPACTS			
Impact 4.1: Cumulative Damage to Scenic Resources within a State Scenic Highway	LS		--
Impact 4.2: Cumulative Degradation of the Existing Visual Character of the Region	LS and LCC		CC and SU
Impact 4.3: Cumulative Impact on Light and Glare	LS		--
Impact 4.4: Cumulative Impact on Agricultural Resources	LS		--
Impact 4.5: Cumulative Impact on the Region's Air Quality	LS		--
Impact 4.6: Cumulative Loss of Biological Resources Including Habitats and Special Status Species	LS		--
Impact 4.7: Cumulative Impacts on Known and Undiscovered Cultural Resources	LS		--
Impact 4.8: Cumulative Impact on Geologic and Soils Resources	LS		--
Impact 4.9: Cumulative Impact on Climate Change from Increased Project-Related Greenhouse Gas Emissions	LS		--
Impact 4.10: Cumulative Impact Related to Hazards and Hazardous Materials	LS		--

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Impact 4.11: Cumulative Exposure of Existing Noise-Sensitive Land Uses to Increased Noise Resulting from Cumulative Development	LS		--
Impact 4.12: Under Cumulative conditions, the proposed Project would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)	PS		CC and SU
Impact 4.13: Under Cumulative conditions, the proposed Project would not adversely affect pedestrian, bicycle, or transit facilities	LS		--
Impact 4.14: Cumulative Impact on Wastewater Utilities	LS		--
Impact 4.15: Cumulative Impact on Water Utilities	LS		--
Impact 4.16: Cumulative Impact on Stormwater Facilities	LS		--

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1.1 PURPOSE AND INTENDED USES OF THE EIR

The City of Tracy (City), as the lead agency, determined that the proposed Schulte Road Warehouse Project is a "Project" within the definition of CEQA. CEQA requires the preparation of an environmental impact report (EIR) prior to approving any project, which may have a significant impact on the environment. For the purposes of CEQA, the term "Project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]).

An EIR must disclose the expected environmental impacts, including impacts that cannot be avoided, growth-inducing effects, impacts found not to be significant, and significant cumulative impacts, as well as identify mitigation measures and alternatives to the proposed project that could reduce or avoid its significant adverse environmental impacts. CEQA requires government agencies to consider and, where feasible, minimize environmental impacts of proposed development.

The City has prepared this Draft EIR to provide the decisionmakers, the public and the responsible and trustee agencies with an objective analysis of the potential environmental impacts resulting from implementation of the proposed Project. The environmental review process enables interested parties to evaluate the proposed Project in terms of its environmental consequences, to examine and recommend methods to eliminate or reduce potentially significant adverse impacts, and to consider a reasonable range of alternatives to the proposed Project. This EIR will be used by the City to determine whether to approve, modify, or deny the proposed Project and associated approvals in light of the Project's environmental effects. The EIR will be used as the primary environmental document to evaluate full development, all associated infrastructure improvements, and permitting actions associated with the proposed Project. All of the actions and components of the proposed Project are described in detail in Chapter 2.0, Project Description.

1.2 TYPE OF EIR

The State CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Project-level EIR, described in State CEQA Guidelines § 15161 as: "The most common type of EIR (which) examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation." The project-level analysis considers the broad environmental effects of the proposed Project.

1.3 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

The term "Responsible Agency" includes all public agencies other than the Lead Agency that have discretionary approval power over the proposed Project or an aspect of the proposed Project (CEQA Guidelines Section 15381). For the purpose of CEQA, a "Trustee" agency has jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California (CEQA Guidelines Section 15386).

The following agencies are considered "Responsible Agencies" or "Trustee Agencies" for the proposed Project, and may be required to issue permits or approve certain aspects of the proposed Project:

- Regional Water Quality Control Board (RWQCB) – Construction activities would be required to be covered under the National Pollution Discharge Elimination System (NPDES)
- RWQCB- The Storm Water Pollution Prevention Plan (SWPPP) would be required to be approved prior to construction activities pursuant to the Clean Water Act;
- San Joaquin Local Agency Formation Commission (LAFCO)- Annexation of the project site to the City would be required.
- San Joaquin Valley Air Pollution Control District (SJVAPCD)- Construction activities would be subject to the SJVAPCD codes and requirements.

1.4 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR has involved, or will involve, the following general procedural steps:

NOTICE OF PREPARATION AND INITIAL STUDY

The City circulated an Initial Study (IS) and Notice of Preparation (NOP) of an EIR for the proposed Project on December 15, 2023 to the State Clearinghouse, State Responsible Agencies, State Trustee Agencies, Other Public Agencies, Organizations and Interested Persons. A public scoping meeting was held on January 9, 2024 to present the project description to the public and interested agencies, and to receive comments from the public and interested agencies regarding the scope of the environmental analysis to be included in the Draft EIR. Concerns raised in response to the NOP were considered during preparation of the Draft EIR. The IS, NOP, and comments received on the NOP by interested parties are presented in Appendix A.

DRAFT EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the proposed Project, description of the environmental setting, identification of project impacts, and describes mitigation measures for impacts found to be potentially significant, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This Draft EIR identifies issues determined to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP were considered in preparing the analysis in this EIR. Upon completion of the Draft EIR, the City filed the Notice of Completion (NOC) with the State Clearinghouse of the Governor's Office of Planning and Research to begin the public review period. Additionally, the City filed the Notice of Availability with the County Clerk and had it published in a newspaper of regional circulation to begin the local public review period.

PUBLIC NOTICE/PUBLIC REVIEW

The City provided a public notice of availability for the Draft EIR, and invited comment from the general public, agencies, organizations, and other interested parties. Consistent with CEQA, the review period for this Draft EIR is forty-five (45) days. Public comment on the Draft EIR are accepted in written form. All comments or questions regarding the Draft EIR should be addressed to:

Attn: Scott Claar, Senior Planner
City of Tracy, Planning Division
333 Civic Center Plaza
Tracy, CA 95376
(209) 831-6429
Scott.Claar@cityoftracy.org

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. Consistent with Section 15132 of the CEQA Guidelines, the Final EIR shall consist of:

a) The Draft EIR or a revision of the draft.
b) Comments and recommendations received on the Draft EIR either verbatim or in summary.
c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
e) Any other information added by the lead agency.

The Final EIR will respond to written comments received during the public review period and to oral comments received at any public hearing that may be held during such review period.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The City will review and consider the Final EIR. If the City finds that the Final EIR is "adequate and complete", the City will certify the Final EIR in accordance with CEQA. The rule of adequacy generally holds that an EIR can be certified if:

1) The EIR shows a good faith effort at full disclosure of environmental information; and

2) The EIR provides sufficient analysis to allow decisions to be made regarding the proposed project in contemplation of environmental considerations.

Following review and consideration of the Final EIR, the City may take action to approve, modify, or disapprove the proposed Project. If approved, a Mitigation Monitoring and Reporting Program, as described below, would also be adopted in accordance with Public Resources Code Section 21081.6(a) and CEQA Guidelines Section 15097 for mitigation measures that have been incorporated into or imposed upon the proposed Project to reduce or avoid significant effects on the environment. This Mitigation Monitoring and Reporting Program will be designed to ensure that

these measures are carried out during project implementation, in a manner that is consistent with the EIR.

1.5 ORGANIZATION AND SCOPE

Sections 15122 through 15132 of the State CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the project and its environmental setting, an environmental impact analysis, mitigation measures, alternatives, a discussion of any significant irreversible environmental changes that may result from the project, a discussion of the project's potential growth-inducing impacts, and a discussion of the project's cumulative impacts. The scope of the environmental issues addressed in the Draft EIR was established through review of environmental and planning documentation developed for the proposed Project, environmental and planning documentation prepared for recent projects located within the City, applicable local and regional planning documents, and responses to the Notice of Preparation (NOP).

This Draft EIR is organized in the following manner:

EXECUTIVE SUMMARY

The Executive Summary summarizes the characteristics of the proposed project, known areas of controversy and issues to be resolved, and provides a concise summary matrix of the proposed Project's potential environmental impacts and possible mitigation measures. The Executive Summary also identifies certain alternatives that may reduce or avoid at least one significant environmental effect of the proposed Project.

CHAPTER 1.0 – INTRODUCTION

Chapter 1.0 briefly describes the purpose of the environmental evaluation, identifies the lead, trustee, and responsible agencies, summarizes the process associated with preparation and certification of an EIR, and identifies the scope and organization of the Draft EIR.

CHAPTER 2.0 – PROJECT DESCRIPTION

Chapter 2.0 provides a detailed description of the proposed Project, including the location, intended objectives, background environmental conditions and information, the physical and technical characteristics of the proposed project, including the decisions subject to CEQA, related improvements, and a list of related agency action requirements.

CHAPTER 3.0 – ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Chapter 3.0 contains an analysis of environmental topic areas as identified below. Each subchapter addresses a topical area and is organized as follows:

Environmental Setting. A description of the existing environment as it pertains to the topical area.

Regulatory Setting. A description of the regulatory environment that may be applicable to the proposed Project.

Impacts and Mitigation Measures. Identification of the thresholds of significance by which the severity of potential impacts are determined, a description of potential project-related impacts associated with the environmental topic, identification of appropriate mitigation measures, and a conclusion as to the significance of each impact, both before and after the implementation of the described mitigation measures.

The following environmental topics are addressed in this section:

- Aesthetics and Visual Resources
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural and Tribal Resources
- Geology and Soils
- Greenhouse Gases, Climate Change, and Energy
- Hazards and Hazardous Materials
- Noise
- Transportation and Circulation
- Utilities and Service Systems

It is noted that the Initial Study for the Project (see Appendix A) concluded that impacts related to Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, and Wildfire were determined to be less than significant and, as a result, are not addressed in this Draft EIR. Appendix A explains the bases for those determinations and why those topics were not included in the Draft EIR's analyses.

CHAPTER 4.0 – OTHER CEQA-REQUIRED TOPICS

Chapter 4.0 evaluates and describes the following CEQA required topics: impacts considered less-than-significant, significant and irreversible impacts, growth-inducing effects, cumulative impacts, and significant and unavoidable environmental effects.

CHAPTER 5.0 – ALTERNATIVES TO THE PROJECT

State CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the proposed Project, which could feasibly attain the basic objectives of the proposed Project and avoid and/or lessen any significant environmental effects of the proposed Project. Chapter 5.0 provides a comparative analysis between the environmental impacts of the proposed Project and the selected alternatives.

CHAPTER 6 – REPORT PREPARERS

This section lists all authors and agencies that assisted in the preparation of the EIR, by name, title, and company or agency affiliation.

APPENDICES

This section includes all notices and other procedural documents pertinent to the EIR, as well as technical material prepared to support the analyses.

1.6 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City received ten written comment letters on the NOP for the proposed Project from the agencies listed below. Copies of those NOP comment letters are provided in Appendix A of this Draft EIR. The commenting agency/citizen is provided below. The City also held a public scoping meeting on January 9, 2024. No written or verbal comments were provided at that scoping meeting.

- State of California Department of Justice (December 20, 2023);
- Jose Antonio Lopez Jr., Chevron Pipe Line Company (January 8, 2024);
- John Dyer, California Highway Patrol (January 10, 2024);
- Central Valley Regional Water Quality Control Board (January 16, 2024);
- Native American Heritage Commission (December 19, 2023);
- San Luis & Delta-Mendota Water Authority (January 11, 2023);
- San Joaquin Council of Governments (December 14, 2023);
- San Joaquin County Environmental Health Department (January 12, 2024);
- San Joaquin County Local Area Formation Commission (December 13, 2023);
- San Joaquin Valley Air Pollution Control District (January 16, 2024).

1.7 POTENTIAL AREAS OF CONCERN

Aspects of the proposed project that were identified during the NOP comment period as potentially being of public concern include the following:

- The type and amount of agricultural land converted to urban uses;
- Impacts on any current and future agricultural operations in the vicinity;
- Potential impacts to surface and groundwater;
- Release of hazards materials;
- Project-related construction and/or operational emissions potentially exceeding SJVAPCD thresholds;
- Operational emissions from off-road equipment (i.e., forklifts) and/or on-road equipment (i.e., mobile yard trucks with the ability to move materials) during Project operation;
- Truck routing and heavy-duty truck air emissions potentially impacting residential communities and sensitive receptors; and
- Toxic Air Contaminants impact on sensitive receptors.

2.1 PROJECT LOCATION

The Project site is located at 16286 West Schulte Road in unincorporated San Joaquin County, California (Figures 2.0-1 and 2.0-2). The Project site is within the Tracy Sphere of Influence (SOI) 10-Year Planning Horizon and is immediately adjacent to the Tracy city limits to the north of the site.

The Project site is immediately south of the intersection of Bud Lyons Way and West Schulte Road. The Project site is bounded on the north by West Schulte Road, on the west by an unnamed driveway serving the adjacent rural residence, on the south by the Delta Mendota Canal, and on the east by vacant agricultural land. The Project site is located within Sections 35 of Township 2 South, Range 4 East Mount Diablo Base Meridian (MDBM). Figures 2.0-1 and 2.0-2 show the Project's regional location and vicinity.

2.2 PROJECT SITE DEFINED

The Project site includes two distinct planning boundaries defined below. The following terms are used throughout this Draft EIR to describe the planning boundaries within the Project site:

- **Project site** – totals 21.92 acres and includes: (1) the proposed 20.92-acre Development Area (APN 209-230-250), and (2) the 1.00-acre Williams Communication Parcel along West Schulte Road (APN 209-230-260), which would not be developed as part of the proposed Project.
- **Development Area** – includes a 20.92-acre parcel (APN 209-230-250) that is intended for the development of up to 217,466-square foot (sf) of warehouse and office uses.

2.3 PROJECT SETTING

EXISTING SITE CONDITIONS

The APN for the Project site is 209-23-250. The Project site is bound by Hansen Road to the west, West Schulte Road to the north, the Delta Mendota Canal to the south, and a private driveway and vacant land on the east. Surrounding land uses include the Cal Fire Station 26 and vacant land to the west, vacant land previously used for agricultural uses to the east, two industrial warehouses to the north, and the Delta Mendota Canal and agricultural land to the south. It is noted that an industrial warehouse Project, the Costco Depot Annexation Project, is currently (as of July 2023) proposed adjacent east of the Project site. The area north of the Project site is part of the Cordes Ranch Specific Plan Area.

The southern portion of the Development Area is currently developed with three single-family residences and six ancillary structures (see Figure 2.0-3). The remainder of the Development Area consists primarily of ruderal grasses which are regularly disced. The Development Area topography is generally flat, with the exception of two five- to ten-foot historic ponds located along the eastern site boundary. The historic ponds were previously associated with on-site dairy operations and no longer contain water.

The Williams Communications Parcel is currently developed with a low voltage transmission station operated by Williams Communications, Inc. Permanent employees do not work on-site, and access to

the site is limited to maintenance vehicles and maintenance personnel. The use of this parcel as a low voltage transmission station would remain as existing.

In order to ensure a conservative analysis, and consistent with CEQA requirements, this EIR uses the vacant/undeveloped, on-the-ground conditions that existed at the time the environmental review process commenced with the release of the Notice of Preparation. Figure 2.0-3 shows the aerial view of the Project site.

SITE TOPOGRAPHY

The Project site is relatively flat with a natural gentle slope from southwest to northeast. The Project site topography ranges in elevation from approximately 148 to 187 feet above sea level[1].

EXISTING SURROUNDING USES

Surrounding land uses include warehouse distribution and other industrial uses to the north (within the Cordes Ranch Specific Plan Area, located in the City of Tracy), vacant agricultural land within unincorporated San Joaquin County to the east, the Delta Mendota Canal and agricultural land within unincorporated San Joaquin County to the south, and a rural residence, CalFire station, and Delta Mendota Canal to the west (within unincorporated San Joaquin County).

2.4 PROJECT GOALS AND OBJECTIVES

Consistent with the California Environmental Quality Act (CEQA) Guidelines Section 15124(b), a clear statement of objectives and the underlying purpose of the proposed Project shall be discussed. The principal objective of the proposed Project is the demolition of three single family residences and six ancillary structures and redevelopment of the Development Area with a one-story, 217,466 sf warehouse building and a surface parking lot.

The City and the Project applicant, Panattoni Development Company, Inc., have identified the following objectives:

- Construct and operate an industrial warehouse facility within one separate building containing ground-level shipping and receiving truck loading docks that is of sufficient size to efficiently operate for the future tenant(s).
- Annex the property into the City Limits and develop the site with light industrial uses, consistent with the City's General Plan land use designation for the site.
- Locate an industrial Project in an area with nearby access to a regional roadway network.
- Ensure that the industrial area along West Schulte Road continues to be developed in a visually pleasing manner.
- Increase contributions to the City's tax base.
- Provide site ingress access for trucks from West Schulte to allow for efficient on-site circulation.
- Complete the Project on schedule and within budget.

[1] San Joaquin County GIS; ArcGIS Online USGS Topographic Map Service. Map date: November 1, 2019.

2.5 USES OF THE EIR AND REQUIRED AGENCY APPROVALS

This EIR may be used for the following direct and indirect approvals and permits associated with adoption and implementation of the proposed Project.

CITY OF TRACY

The City of Tracy is the Lead Agency for the proposed Project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050. If the City Council certifies the EIR in accordance with CEQA requirements, the City may use the EIR to support the following actions:

- Pre-zone of the property to the City's M-1 zoning district;
- Annexation of the Project site into the City (which requires approval by the San Joaquin County LAFCO);
- Development review permit for building design, landscaping, and other site features;
- A Conditional Use Permit to allow for food processing and canning in the M-1 Zoning District;
- Building, grading, and other permits as necessary for Project construction;
- Adopting a Mitigation Monitoring and Reporting Program (MMRP).

OTHER GOVERNMENTAL AGENCY APPROVALS

The following agencies may rely on the certified EIR to issue permits or approve certain aspects of the proposed Project:

- Regional Water Quality Control Board (RWQCB) – Construction activities must be covered under the National Pollution Discharge Elimination System (NPDES);
- RWQCB – A Storm Water Pollution Prevention Plan (SWPPP) must be approved prior to construction activities pursuant to the Clean Water Act;
- San Joaquin LAFCo – Approval of a petition for annexation of the Project site.
- San Joaquin Valley Air Pollution Control District (SJVAPCD) – Construction activities would be subject to the SJVAPCD codes and requirements.

2.6 PROJECT CHARACTERISTICS AND DESCRIPTION

PROJECT CHARACTERISTICS

The 217,466-sf warehouse would include 206,593 sf of warehouse uses and 10,873-sf of office space. The City's General Plan land use designation for the Project site is Industrial. Specific uses allowed in the industrial category range from flex/office space to manufacturing to warehousing and distribution. Although the tenant(s) of the proposed warehouse are unknown at this time, this analysis assumes that business operations could occur 24 hours per day. No cold storage facilities or uses will be allowed on-site.

The proposed warehouse would include 31 dock level doors on the eastern side of the building. The maximum height of the one-story warehouse would be 42.6 feet, with the majority of the building at 40 feet. Landscaping would be provided throughout the site.

The proposed Project would be subject to Development Review Permit approval by the City, during which City staff would ensure that the proposed Project would comply with all applicable City regulations including, but not limited to, landscaping and visual screening. Development Review would occur as part of the building design and landscape review.

Figure 2.0-4 shows the proposed site plan.

Warehouse Architecture

The proposed warehouse design would be contemporary in style and would use a variety of massing and materials appropriate for the scale of the buildings. Architectural metal with varied textures and horizontal and vertical orientations would be used, while varying parapet cap heights would break up the long elevations both horizontally and vertically. The parapets will also assist in concealing rooftop-mounted mechanical equipment. The proposed architecture places and focuses the design's detailed elements, varied building materials and color changes towards the front of the buildings along West Schulte Road.

Figure 2.0-5 shows the renderings for the proposed warehouse.

Landscape and Stormwater Plan

The landscape plan includes a mix of drought-tolerant shrubs and grasses, and a variety of shade trees appropriate for the climate in Tracy would be used throughout the parking lots and along the Project perimeter. The landscape design and plant palette would complement the existing street and building/development landscape character established by Prologis and the International Park of Commerce. Stormwater treatment/detention basins and stormwater bioretention treatment planters would be located throughout the Project site, mainly in the proposed landscaped areas and along West Schulte Road

Figure 2.0-6 shows the locations for the landscape areas, hardscapes, and stormwater treatment areas. Figure 2.0-7 shows the location of the shrubs, trees, and groundcovers.

CIRCULATION, TRANSPORTATION, AND PARKING

As shown in Figure 2.0-4, site access would be provided by two new driveways: one from the southwest, off of Hansen Road; and one from the north, off of West Schulte Road. The project would also involve improvements to Hansen Road adjacent to the Project site, including roadway resurfacing improvements and construction of an interim driveway access to the site off Hansen Road. In the future, the City may construct a roundabout at the southwestern site access point. The roundabout is a planned improvement in the City's Transportation Master Plan Update.

As shown in Figure 2.0-4, the proposed parking area would include approximately 206 vehicle parking stalls and 116 trailer parking stalls. The vehicle parking area would be located in the southern portion of the site and the trailer parking area would be located in the eastern portion of the site.

UTILITIES

The proposed Project would connect to existing City infrastructure to provide water, sewer, and storm drainage utilities. Existing storm drain, sewer, water, and gas lines/pipes are currently located along West Schulte Road.

The Project would be served by the following existing service providers:

1. City of Tracy for water;
2. City of Tracy for wastewater collection and treatment;
3. City of Tracy for stormwater collection;
4. Pacific Gas and Electric Company (PG&E) for gas and electricity.

Utility lines within the Project site and adjacent roadways would be extended throughout the Project site. Wastewater, water, and storm drainage lines would be connected via existing lines along West Schulte Road. The project would also connect to PG&E's existing electrical and natural gas infrastructure in the project vicinity.

Stormwater bioretention treatment planters would be located throughout the project site, mainly in the proposed landscaped areas and along Hansen Road and the east property line. Stormwater runoff from each of the drainage areas would be routed to a series of on-site stormwater bioretention treatment planters and treatment/detention basins. It is anticipated that runoff from the Project would be diverted to the proposed detention basin identified as LW-11 in the City's Storm Drain Master Plan, located on City land east of the Project site. Should the Project be operational prior to development of LW-11, temporary on-site retention basins would be provided on-site.

Best management practices (BMPs) will be applied to the proposed development to limit the concentrations of constituents in any site runoff to acceptable levels. Stormwater flows from the Project site would be directed to the proposed stormwater treatment basins, treatment planters, and bioretention areas by a new stormwater conveyance system on the Project site. Stormwater runoff would not be allowed to discharge directly to the existing storm drains in West Schulte Road without first discharging to the bioretention areas. The landscaping plan includes stormwater treatment plantings in the treatment/detention basins. Additionally, erosion and sediment control measures would be implemented during construction.

The utility plan is shown in Figure 2.0-8.

GENERAL PLAN LAND USE AND ZONING

The City General Plan land use designations for the Project site and surrounding area are shown on Figure 2.0-9. The existing County zoning and proposed City prezoning are shown on Figure 2.0-10.

General Plan

Per the San Joaquin County General Plan, the Project site is designated General Agriculture (A/G). Per the City of Tracy General Plan, the Project site is designated Industrial. The proposed Project is consistent with the current City General Plan land use designation.

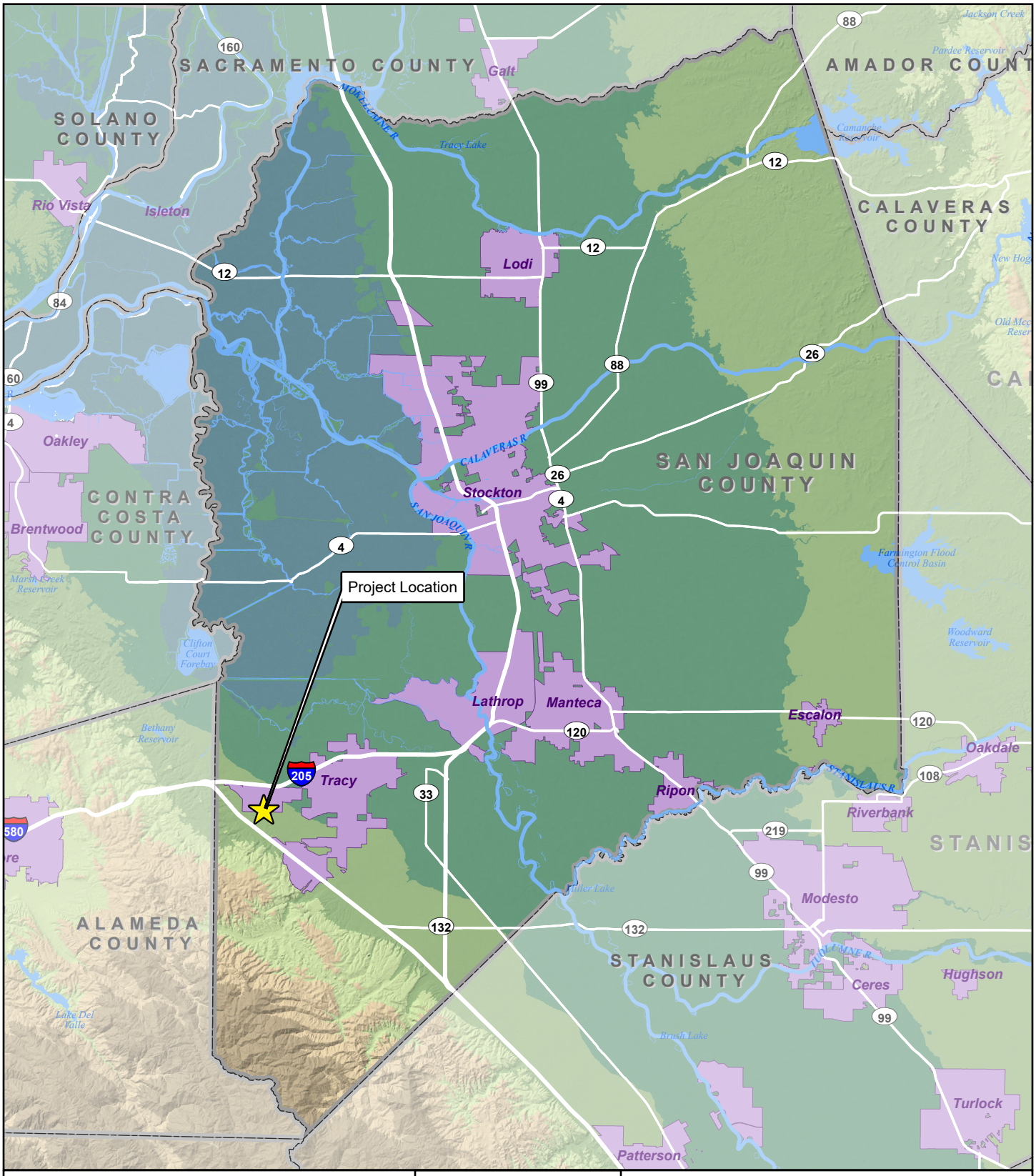
Pre-zoning

Because the Project site is located outside of the City limits, the site does not currently have a City zoning designation. The Project site is currently within the jurisdiction of San Joaquin County. The Project site is zoned General Agriculture (AG-40) by San Joaquin County.

The San Joaquin County Local Agency Formation Commission (LAFCo) will require the Project site to be pre-zoned by the City of Tracy in conjunction with the proposed annexation. The City's pre-zoning for the Project site will be the Light Industrial (M-1) zoning designation. Upon annexation into the City of Tracy, the Light Industrial (M-1) pre-zoning designation would become the City's formal zoning designation. In the Light Industrial (M-1) Zone, only industrial activities and uses which are included in the following use groups are permitted without a conditional use permit under Section 10.08.4250 of the Tracy Municipal Code: minor public services uses; local public service and utility installations; temporary buildings and uses; crop and tree farming; specialty crops; accessory uses, except recreation facilities and residences; contract construction; warehousing and storage; small recycling collection facilities; and light manufacturing uses. The proposed project is consistent with the proposed M-1 pre-zoning and zoning.

ANNEXATION

The Project site is currently within San Joaquin County, and within the City of Tracy's SOI 10-Year Planning Horizon. The proposed Project would result in the annexation of the Project site into the City of Tracy. The EIR analyzes the potential environmental effects from annexation of the Project site into the City of Tracy. Annexation of the Project site is consistent with the growth plans for the City of Tracy.



LEGEND

- Incorporated Area
- County Boundary

N

0 2½ 5

Miles

Sources: San Joaquin County GIS. Map date: December10, 2021

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 2.0-1. Regional Project Location

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Path: C:\GIS_00\SanJoaquin\Tracy\SchulteRoad\Tracy\SchulteRoad.aprx

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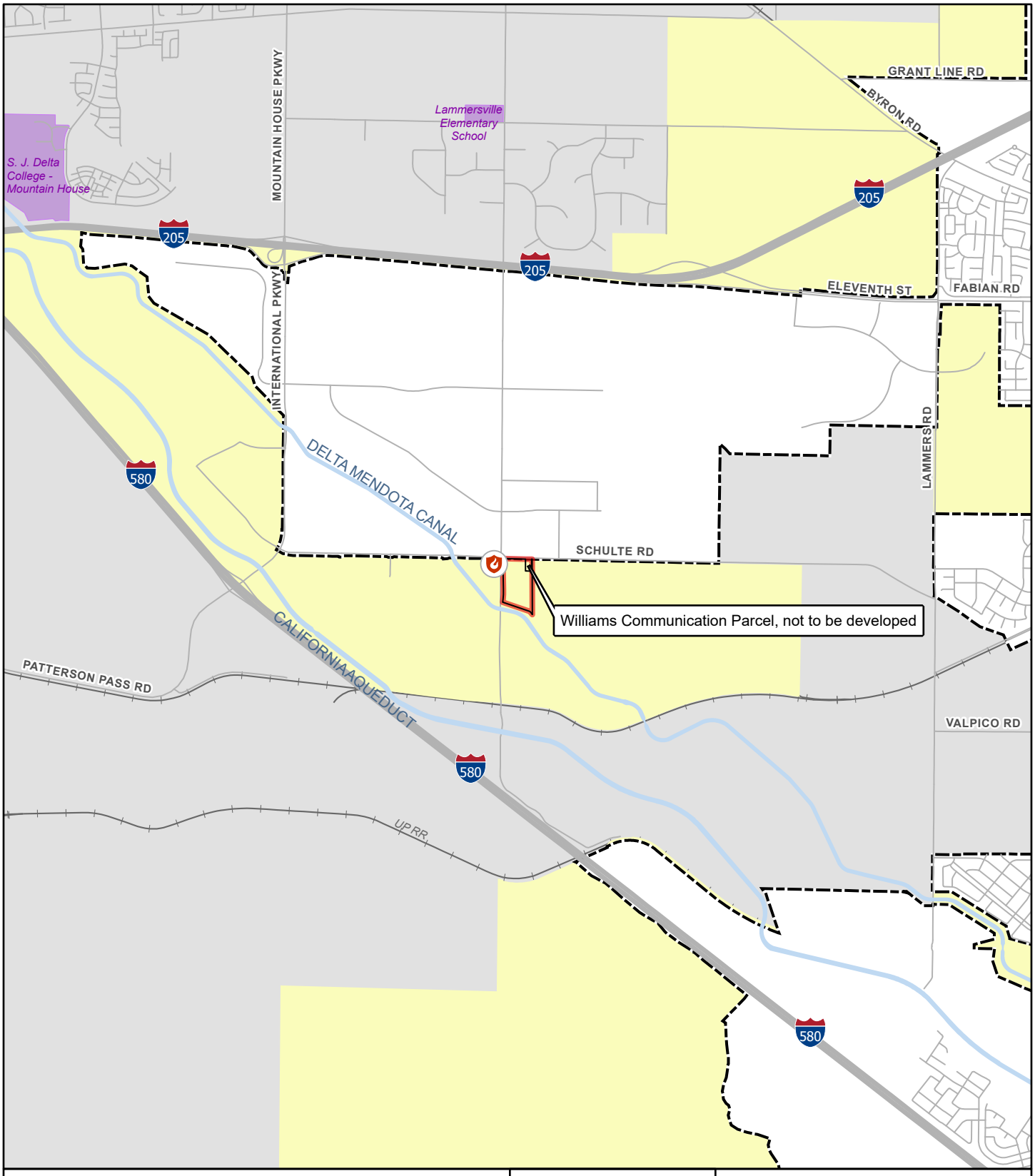

LEGEND

- Project Site/ Annexation Area
- Development Area
- Tracy City Limits
- Tracy Sphere of Influence

Public Facilities

- Schools
- Tracy Fire Department Station #94

Sources: San Joaquin County GIS. Map date: December10, 2021

N

0 ¼ ½

Miles

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 2.0-2. Project Vicinity

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Path: C:\GIS_00\San Joaquin\Tracy\SchulteRoad\Tracy\SchulteRoad.aprx

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LEGEND

- Project Site/ Annexation Area
- Development Area
- Williams Communication Parcel, not to be developed
- Tracy City Limits
- Tracy Sphere of Influence

N

0 400 800

Feet

Sources: San Joaquin County GIS. ArcGIS Online World Imagery Map Service(10/22/2020).
Map date: December10, 2021

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 2.0-3. Aerial View of Project Site

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Path: C:\GIS_Q\San Joaquin\Tracy\SchulteRoad\Tracy SchulteRoad.aprx

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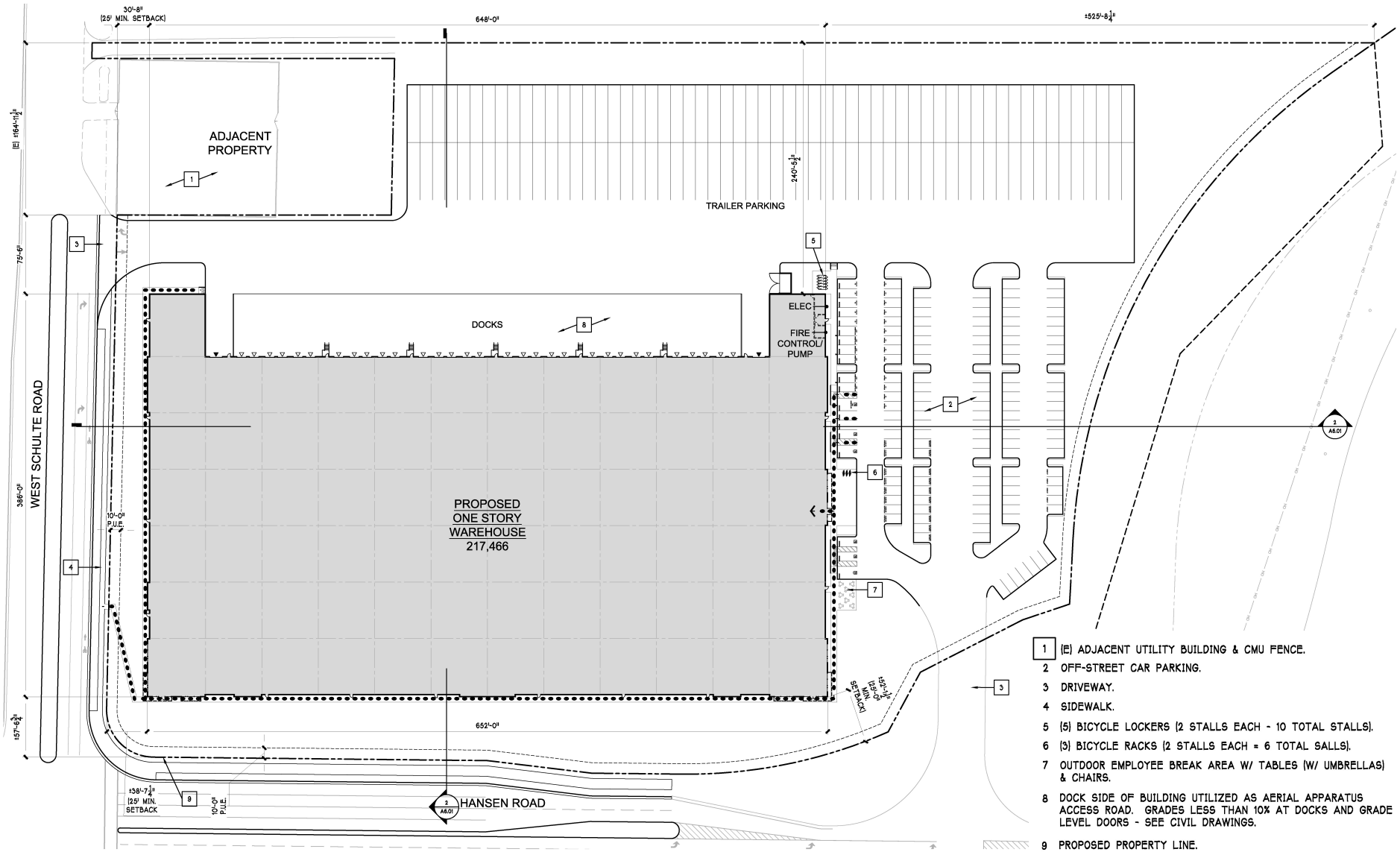

LEGEND

PROPERTY LINE

ACCESSIBLE PATH OF TRAVEL

N

scale unknown

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 2.0-4. Site Plan

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Source: SEIGFRIED 3/19/2024. Map date: July 29, 2024.

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① View from W Schulte Rd & Hansen Rd

② View from Hansen Rd (Main Entry & Parking)

③ View from W Schulte Rd

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 2.0-5. Project Renderings

Source: VITAE, 3-19-2024 . Map date: August 7, 2024.

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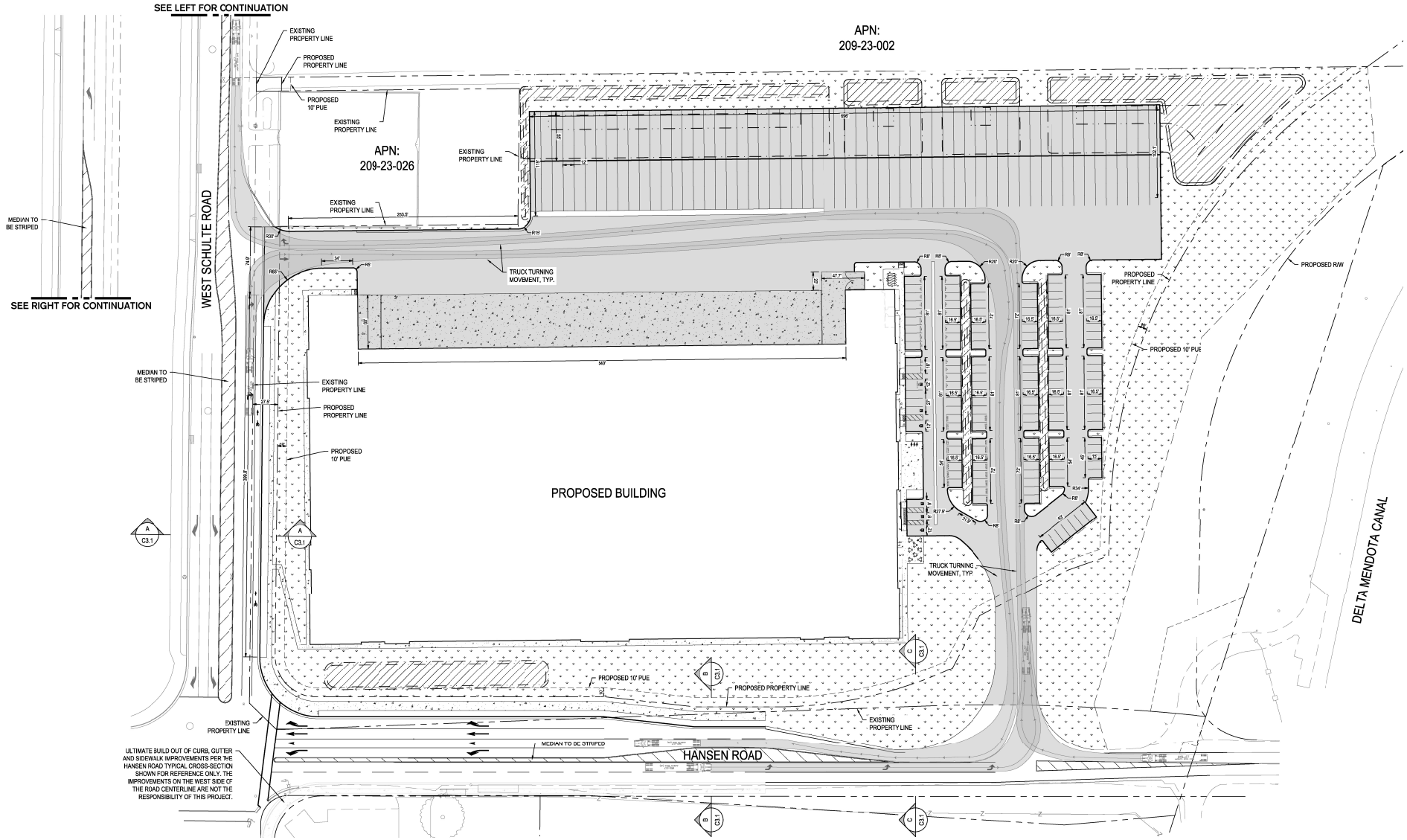

LEGEND:

- HEAVY DUTY CONCRETE
- ASPHALT PAVEMENT
- PEDESTRIAN CONCRETE
- LANDSCAPE AREA
- STORM WATER TREATMENT AREA

scale unknown

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 2.0-6. Paving and Dimensioning Plan

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Source: SEIGFRIED 3/19/2024. Map date: July 29, 2024.

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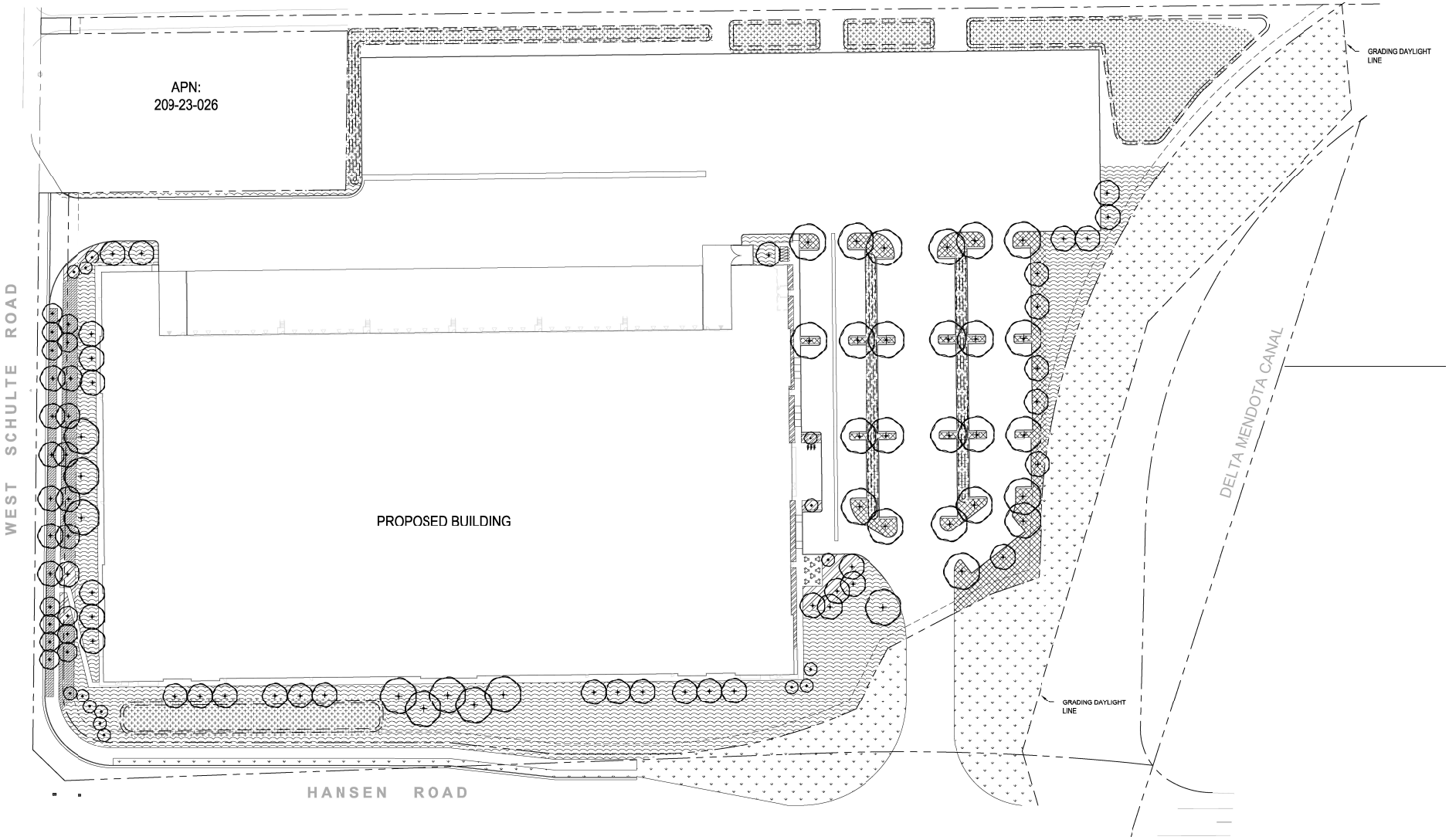

Bioretention Basin - Shrub & Grass

Offsite - Non-Irrigated Hydroseed

Entry Accent - Shrub & Groundcovers

Site - Shrubs & Groundcovers

Parking Lot - Shrub & Groundcovers

Street Frontage - Shrub & Groundcovers

Tree Location (proposed for reference)

scale unknown

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 2.0-7. Shrub and Groundcover Plan

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Source: SEIGFRIED 3/19/2024. Map date: July 29, 2024.

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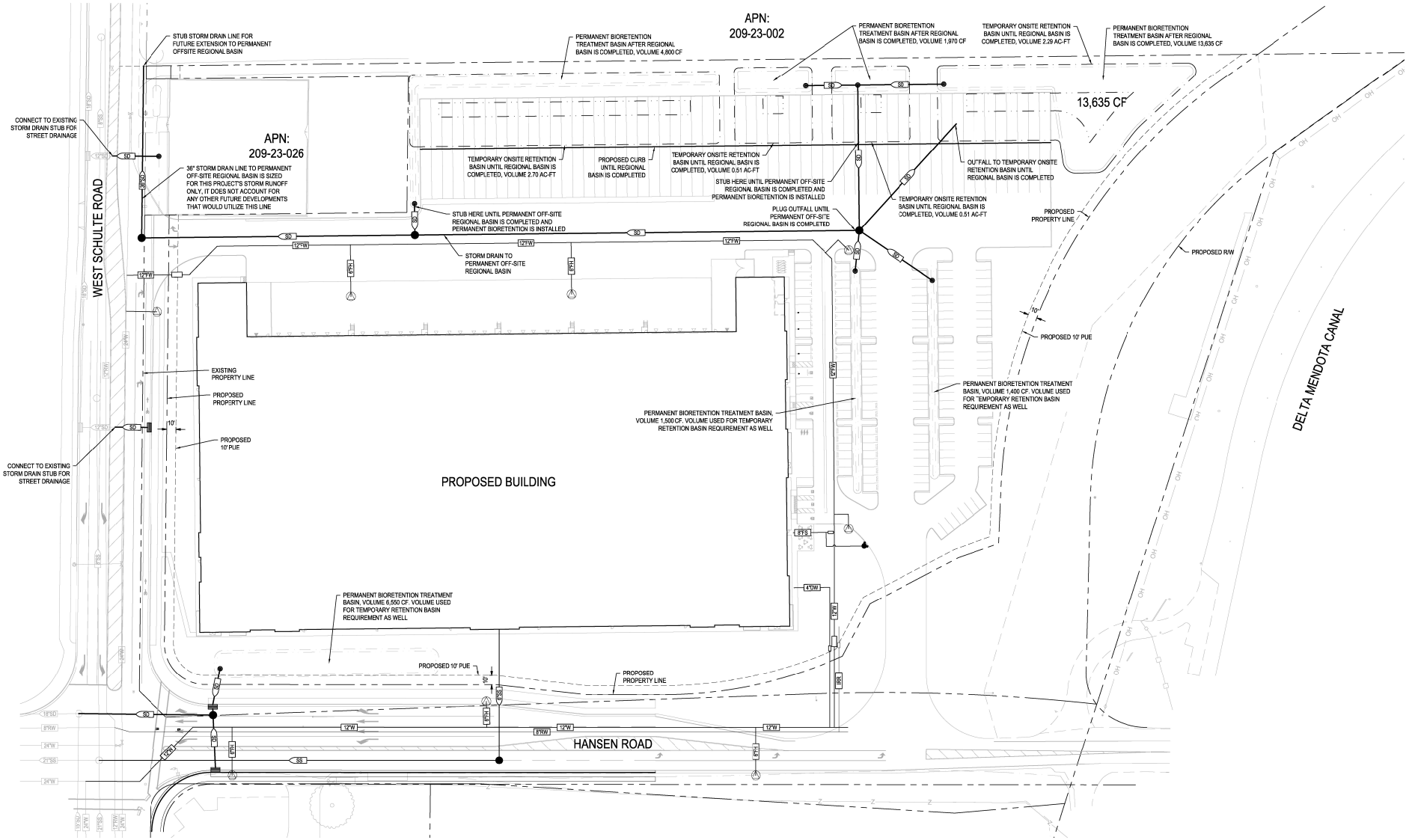

LEGEND:

- PROPOSED MANHOLE
- PROPOSED CITY DRAIN STORM INLET
- PROPOSED SITE DRAIN INLET
- PROPOSED FIRE HYDRANT
- PROPOSED FDC
- PROPOSED SANITARY SEWER LINE
- PROPOSED STORM DRAIN PIPE
- PROPOSED WATER LINE
- PROPOSED FIRE SERVICE LINE
- PROPOSED FIRE HYDRANT LINE

STORM DRAIN DESIGN:

1. ENTITLED/APPROVED OPTION: ONSITE TREATMENT AND RETENTION TO MEET THE POST CONSTRUCTION STANDARDS MANUAL IN THE STORM WATER PLANTERS, 31,825 CF; WITH A FUTURE REGIONAL BASIN TO HOLD THE 100 YEAR STORM EVENT FOR THE PROJECT PARCEL TO MAXIMIZE USABLE SPACE.
2. TEMPORARY RETENTION REQUIREMENT: TEMPORARY ON-SITE RETENTION BASIN WITH STORAGE REQUIREMENT OF 6.22 AC-FT FOR THE PROJECT ACCORDING TO THE STORM DRAIN MEMO PREPARED BY WOOD RODGERS DATED JANUARY 31, 2022. SITE WOULD LOSE TRUCK & TRAILER PARKING ALONG THE EAST PORTION OF THE SITE TO ACCOMMODATE THIS.

N

scale unknown

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 2.0-8. Utility Plan

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Source: SEIGFRIED 3/19/2024. Map date: July 29, 2024.

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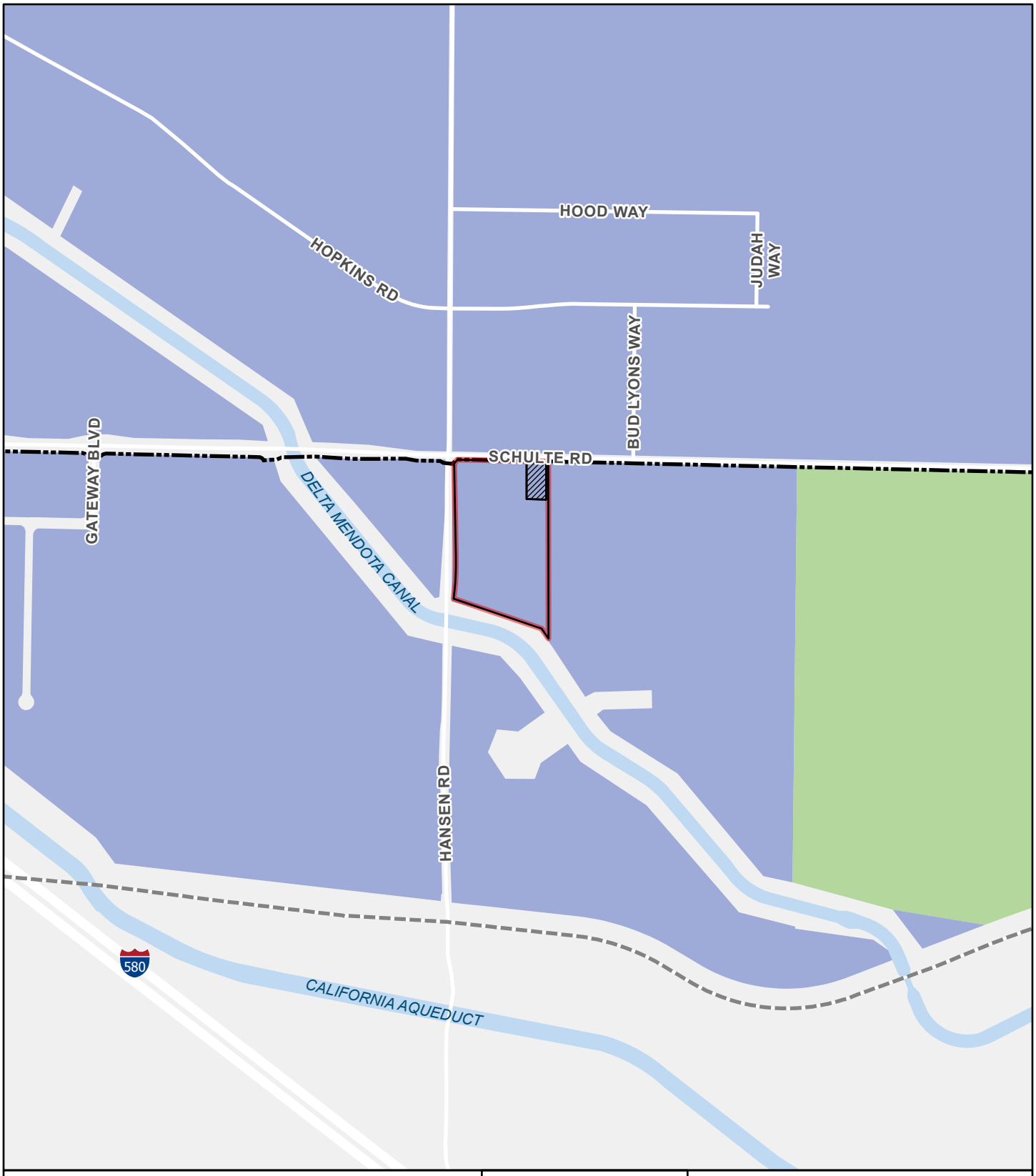

LEGEND

- Project Site/ Annexation Area
- Tracy City Limits
- Tracy Sphere of Influence

City of Tracy Land Use

- Industrial
- Park

Development Area

- Development Area
- Williams Communication Parcel, not to be developed

N

0 400 800

Feet

Sources: City of Tracy. San Joaquin County GIS. Map date: December10, 2021

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 2.0-9. Existing General Plan Land Use Map

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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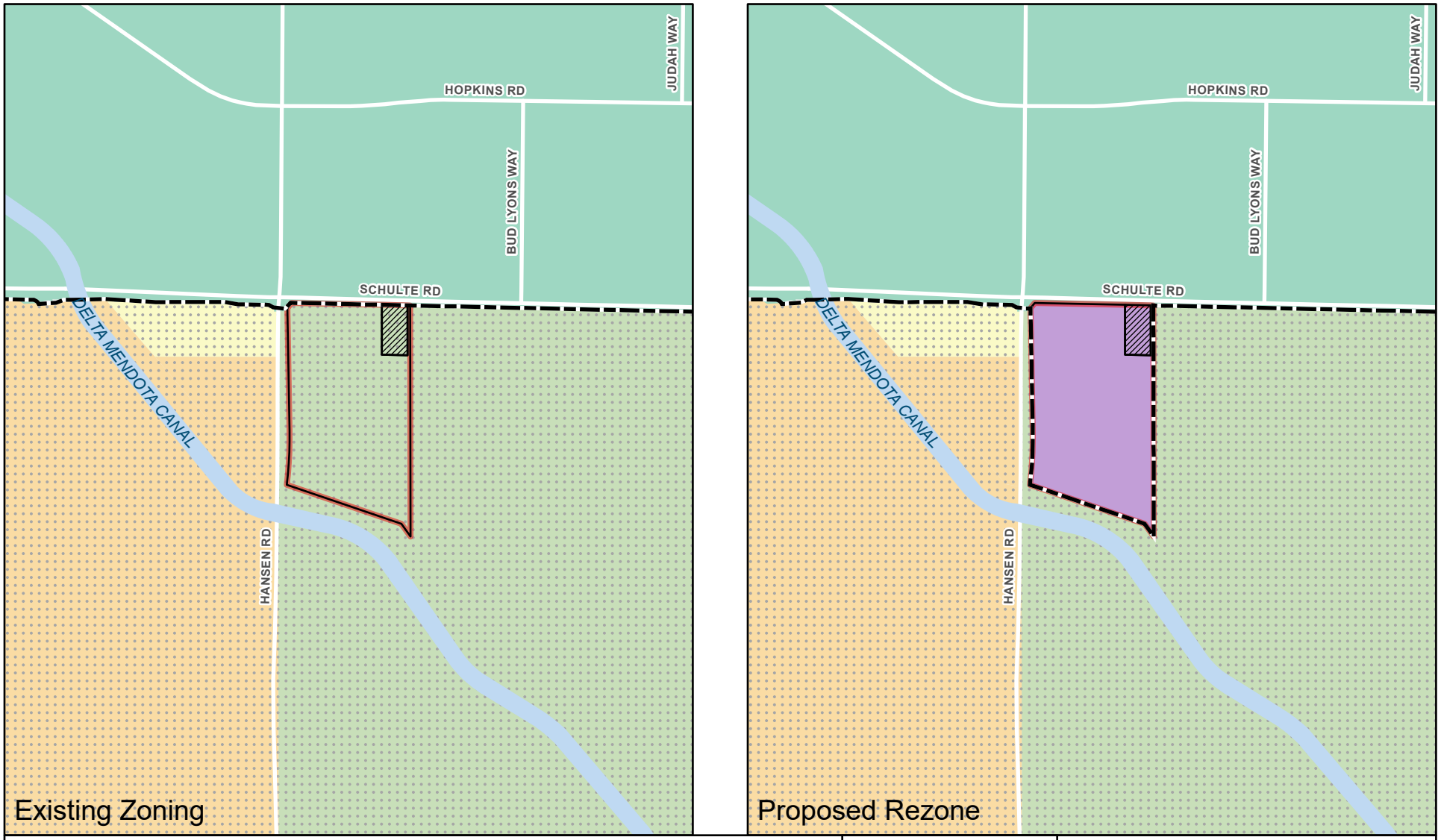
HOPKINS RD
JUDAH WAY
BUD LYONS WAY
SCHULTE RD
DELTA MENDOTA CANAL
HANSEN RD
Existing Zoning
HOPKINS RD
JUDAH WAY
BUD LYONS WAY
SCHULTE RD
DELTA MENDOTA CANAL
HANSEN RD
Proposed Rezone
LEGEND
Project Site/ Annexation Area
Tracy City Limits
Development Area
Development Area
Williams Communication Parcel, not to be developed
San Joaquin County Zoning
AG-40
I-L
P-F
City of Tracy Zoning
M-1
CRSP
N
0
400
800
Feet
Sources: City of Tracy. San Joaquin County GIS. Map date: December10, 2021
CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT
Figure 2.0-10. Existing and Proposed Zoning Map
De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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This section provides an overview of the visual character, scenic resources, views, scenic highways, and sources of light and glare that are encountered on the Project site and the vicinity. This section concludes with an evaluation of impacts. Information in this section is derived primarily from the California Department of Transportation (Caltrans) Scenic Highways Program website (2023), San Joaquin County General Plan (2016), City of Tracy General Plan (2011), City of Tracy Municipal Code (December 22, 2022), and City of Tracy Standard Plans (2020).

No comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic. Full comments received are included in Appendix A.

3.1.1 ENVIRONMENTAL SETTING

VISUAL AND SCENIC RESOURCES

Visual resources are generally classified into two categories: scenic views and scenic resources. Scenic views are elements of the broader viewshed such as mountain ranges, valleys, and ridgelines. They are usually mid-ground or background elements of a viewshed that can be seen from a range of viewpoints, often along a roadway or other corridor. Scenic resources are specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. They are specific features that act as the focal point of a viewshed and are usually foreground elements.

Aesthetically significant features occur in a diverse array of environments within the region, ranging in character from urban centers to rural agricultural lands to natural water bodies. Features of the built environment that may also have visual significance include individual or groups of structures that are distinctive due to their aesthetic, historical, social, or cultural significance or characteristics. Examples of the visually significant built environment may include bridges or overpasses, architecturally appealing buildings or groups of buildings, landscaped freeways, and a location where a historic event occurred.

Most of Tracy's scenic vistas and corridors are associated with the open space and agricultural resources of the surrounding Sphere of Influence (SOI) and Planning Area, and are a valued local asset for the community. The surrounding farming and grazing lands, and grassy hillsides of the Diablo coastal range, serve to situate the City in its local environment and landscape, and provide a reminder of its agricultural heritage.

Scenic views in the vicinity of the Project site include:

- Views of the Diablo Range. Rising from the Southwest portion of the Tracy Planning Area, this range extends from near sea level to 1,652 feet and provides a visual barrier between the Central Valley and the San Francisco Bay Area. Generally, the eastern slopes visible from Tracy have not been developed and contain sporadic tree groupings.
- Expansive Agricultural Lands. Agricultural lands that are used for row crops and grazing are found in the Project vicinity.

SCENIC HIGHWAYS AND CORRIDORS

Scenic highways and corridors make major contributions to the quality of life enjoyed by the residents of a region. The development of community pride, the enhancement of property values, and the protection of aesthetically-pleasing open spaces reflecting a preference for the local lifestyle are all ways in which scenic corridors are valuable to residents.

Scenic highways and corridors can also strengthen the tourist industry. For many visitors, highway corridors will provide their only experience of the region. Enhancement and protection of these corridors ensures that the tourist experience continues to be a positive one and, consequently, provides support for the tourist-related activities of the region's economy.

Scenic Highways

A scenic highway is generally defined by Caltrans as a public highway that traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

Only one highway section in San Joaquin County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of Interstate 580 (I-580) from Interstate 5 (I-5) to Interstate 205 (I-205). This route traverses the edge of the Coast Range to the west and Central Valley to the east. Portions of the western portion of the City of Tracy and portions of the Project site are visible from this roadway segment, which is located 0.75 miles southwest of the site.

Scenic Corridors/Routes

A scenic corridor is the view from the road that may include a distant panorama and/or the immediate roadside area. A scenic corridor encompasses the outstanding natural features and landscapes that are considered scenic. It is the visual quality of the man-made or natural environments within a scenic corridor that are responsible for its scenic value. Commonly, the physical limits of a scenic corridor are broken down into foreground views (zero to one quarter mile) and distant views (over one quarter mile). In addition to distinct foreground and distant views, the visual quality of a scenic corridor is defined by special features, which include:

- Focal points - prominent natural or man-made features which immediately catch the eye.
- Transition areas - locations where the visual environment changes dramatically.
- Gateways - locations which mark the entrance to a community or geographic area.

As identified in the Open Space Element of the San Joaquin County General Plan, designated scenic routes in the county include I-5 from the Sacramento County line south to Stockton. The City of Tracy is located southwest of Stockton, and neither the City nor the Project site are visible from this segment of I-5. The City of Tracy General Plan does not identify any scenic routes within or adjacent to the City.

SCENIC WATER RESOURCES AND WILD AND SCENIC RIVERS

Water resources are important visual resources that draw tourists to the area for recreational opportunities.

Wild and Scenic Rivers

Federal agencies have jurisdiction, under the Wild and Scenic Rivers Act, to designate rivers or river sections to "be preserved in free-flowing condition and…protected for the benefit and enjoyment of present and future generations."

The most visually significant water body in the region is the San Joaquin River, which is located approximately 11 miles northeast of the Project site. The San Joaquin River is not designated as a Wild and Scenic River under the Federal Wild and Scenic Rivers Act.

PROJECT SITE

The Project site is located in the western portion of the City of Tracy's Sphere of Influence (SOI) 10-Year Planning Horizon, within the unincorporated area of San Joaquin County. The Project site is located northeast of I-580, approximately 4.75 miles southwest of Tracy City Hall, and directly south of the Cordes Ranch Specific Plan[1]. Figures 2.0-1 and 2.0-2 in Chapter 2.0, Project Description, illustrate the regional location and Project vicinity.

The Project site encompasses approximately 21.92 acres of land. The southern portion of the Development Area is currently developed with three single-family residences and six ancillary structures (see Figure 2.0-3). The remainder of the Development Area consists primarily of ruderal grasses which are regularly disced. The Development Area topography is generally flat, with the exception of two five- to ten-foot historic ponds located along the eastern site boundary. The historic ponds were previously associated with on-site dairy operations and no longer contain water.

The Williams Communications Parcel is currently developed with a low voltage transmission station operated by Williams Communications, Inc. Permanent employees do not exist on-site, and access to the site is limited to maintenance vehicles and maintenance personnel. The development of this parcel as a low voltage transmission station would remain as existing.

As a result of site disturbance associated with the previous agricultural operations and existing developed uses, limited natural scenic areas can be found within the Project site. There is little

[1] The Cordes Ranch Specific Plan establishes land use, zoning, development standards and regulations for approximately 1,780 acres located in the northwest region of the City of Tracy. The vision for the Cordes Ranch Specific Plan is to create a commerce and business park, consisting of 55.1 acres of General Commercial uses, 152.2 acres of General Office uses, 1,476.9-acres of Business Park Industrial uses, and 96.3-acres of Park uses.

native vegetation or natural habitat located on the site, and the flat topography of the site renders the site essentially void of prominent natural visual features. There are few trees or light sources on-site. Trees are located near the existing structures in the southern portion of the Project site. Light sources are limited to exterior lighting associated with the Williams Communication Parcel facilities (in the northern portion of the site) and the existing residential uses and associated structures (in the southern portion of the site).

There is no unique or distinguishing visual or aesthetic characteristic of the Project site, aside from the open space nature of the northern portions of the Project site, which offers a vast expanse of grassland. The undeveloped grassland can provide visual relief to a passerby/viewer from common manmade structures and visual obstructions found in an urban environment. The Project site's aesthetic value can be attributed to its openness and undeveloped nature, which contrasts the industrial nature to the north.

Throughout the year the land, previously used for agriculture, evolves from an environment that appears lush with vegetation (green grassland) to an environment that appears barren (dead grassland). Agricultural land in California's Great Central Valley is generally accepted as an important visual resource. The visual character is only occasionally interrupted by shrubbery and mature trees (primarily located near the agricultural residential property on the southern portion of the site).

Surrounding Land Uses

The Project site is surrounded by a variety of undeveloped and developed land uses. The Project site is bound by Hansen Road to the west, West Schulte Road to the north, the Delta Mendota Canal to the south, and a private driveway and vacant land on the east. Surrounding land uses include the Cal Fire Station 26 and vacant land to the west, vacant land previously used for agricultural uses to the east, two industrial warehouses to the north, and the Delta Mendota Canal and agricultural land to the south. The area north of the project site is part of the Cordes Ranch Specific Plan.

3.1.2 REGULATORY SETTING

STATE

California Scenic Highway Program

The intent of the California Scenic Highway Program is "to protect and enhance California's natural scenic beauty and to protect the social and economic values provided by the State's scenic resources." Caltrans administers the program, which was established in 1963 and is governed by the California Streets and Highways Code §260 et seq. The goal of the program is to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of the adjacent land. Caltrans has compiled a list of state highways that are designated as scenic and county highways that are officially designated or eligible for designation as scenic. Scenic highway designation can provide several types of benefits to the region. Scenic areas are protected from encroachment of inappropriate land uses, free of billboards, and are generally required to

maintain existing contours and preserve important vegetative features. Only low-density development is allowed on steep slopes and along ridgelines on scenic highways, and noise setbacks are required for residential development.

To obtain an official "Scenic Highway" designation, the State and Caltrans require a responsible local agency or Local Governing Body (LGB) to prepare a scenic corridor protection program. In the Tracy area, San Joaquin County is the LGB. Corridor protection programs are required to contain the following five elements, which have been included in the San Joaquin County's policies:

- Regulations of land use and density of development;
- Detailed land and site planning;
- Control of outdoor advertising;
- Careful attention to and control of earthmoving and landscaping; and
- The design and appearance of structures and equipment. [2]

According to the Caltrans Scenic Highway Programs website, Caltrans monitors state-designated scenic routes in order to ensure each local jurisdiction's consistency with State guidelines. Specifically, Caltrans District Scenic Highway Coordinator (DSHC) will review a scenic highway for compliance every five years, but can recommend the revocation of scenic designation at any time. To enforce the program, the DSHC will contact the responsible local agency or LGB, in this case, San Joaquin County. The LGB must either respond by submitting its current Corridor Protection Program or a letter of intent to request a revocation of the scenic designation. The DSHC reviews the submittal and takes corrective action to resolve any issues of non-compliance, certifies compliance, or recommends revocation of scenic designation.

LOCAL

The San Joaquin County General Plan and the City of Tracy General Plan identifies visual and scenic resources within the city and county and recommends measures to protect these resources.

San Joaquin County General Plan

San Joaquin County is responsible for enforcing the protection of State-designated scenic routes within its borders. The County General Plan identifies I-580 and Interstate 5 as scenic routes near Tracy. Though the Project site is not traversed by or located adjacent to a scenic route, portions of the Project site are intermittently viewable from I-580 over 0.65 miles away.

[2] Scenic Highways Program website, Frequently Asked Questions, https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways/lap-liv-i-scenic-highways-faq2, accessed on November 25, 2019.

City of Tracy General Plan

The City of Tracy General Plan includes several policies that are relevant to an evaluation of the visual quality of the Project site. General Plan policies applicable to the Project are identified below:

POLICY: OPEN SPACE AND CONSERVATION

- OSC-2.2-P1. Development projects shall have buffer zones, such as roads, setbacks and other physical boundaries, between agricultural uses and urban development. These buffer zones shall be of sufficient size to protect the agriculture operations from the impacts of incompatible development and shall be established based on the proposed land use, site conditions and anticipated agricultural practices. Buffers shall be located on the land where the use is being changed, and shall not become the maintenance responsibility of the City.

POLICIES: COMMUNITY CHARACTER

- CC-1.1-P3. All new development and redevelopment shall adhere to the basic principles of high-quality urban design, architecture and landscape architecture including, but not limited to, human-scaled design, pedestrian-orientation, interconnectivity of street layout, siting buildings to hold corners, entryways, focal points and landmarks.
- CC-1.1-P4. To the extent possible, site layout and building design should take into account Tracy's warm, dry climate, such as through the inclusion of trees and landscaping or other architectural elements to provide shade.
- CC-1.1-P5. Lighting on private and public property should be designed to provide safe and adequate lighting, while minimizing light spillage to adjacent properties.
- CC-1.2-P1. New development projects shall be approved only if they meet the design principles set forth in the Community Character Element and in detailed design guidelines approved by the City Council.
- CC-1.5-P1. New development shall locate and construct utilities underground.
- CC-11.1.-P1. Employment Areas should contain one or more Focal Points such as a retail use, park or plaza.
- CC-11.1.-P2. Focal Points in Employment Areas may be located on private or public property and are encouraged to be publicly accessible.
- CC-11.2-P.1. Development in Employment Areas should adhere to high-quality design standards.
- CC-11.2-P.4. Building setbacks for office buildings or office portions of industrial buildings should be minimized to ensure that buildings define the edges of the street.
- CC-11.2-P.6. Loading facilities in Employment Areas should be screened from view from public streets to the extent possible.
- CC-11.3-P.1. The impact of parking in Employment Areas on the pedestrian environment should be minimized with attractive landscaping.

- CC-11.3-P.2. Parking lots should be set back from the street with a landscaped buffer wherever possible.
- CC-11.3-P.3. Parking for alternative modes of transportation, such as preferential parking for carpool/vanpool, motorcycles or alternative fuel vehicles and bicycles, should be incorporated into parking plans for development projects in Employment Areas.

City of Tracy Municipal Code

Tracy Municipal Code Section 10.08.3560, Landscaping Requirements for Parking Areas, contains standards and provisions related to landscaping design requirements that would apply to the proposed Project. The primary intent of Section 10.08.3560 is to require a variety of landscaping throughout the parking areas and to screen the parking areas from the public rights-of-ways.

Tracy Municipal Code Chapter 11.28, Article 8, Water Efficient Landscape Ordinance, establishes structure for planning, designing, installing, maintaining and managing water efficient landscapes in new construction and rehabilitated projects by encouraging the use of a watershed approach. The ordinance promotes the benefits of consistent landscape ordinances with local and regional agencies, as well as promotes the values and benefits of landscaping that integrate and go beyond the conservation and efficient use of water.

Tracy Municipal Code Chapter 7.08, Trees and Shrubbery, contains standards for tree planting and removal, as well as provisions that address tree maintenance of public and private property. The standards address issues of trees on private property and those on public easements through private property.

City of Tracy Standard Plans

The City of Tracy Standard Plan for streets & utilities #146 establishes standards for street lights, requiring high pressure sodium lamps. Standard Plan #141 establishes standards for lighting parking areas, requiring that illuminated parking facilities provide a minimum 1-foot candle.[3] The City's Standard Plan for streetscapes and parks (#D10.0) establishes that all lights shall be designed and oriented to shield neighboring residences to the extent possible.[4]

3.1.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on aesthetics if it will:

- Have a substantial adverse effect on a scenic vista;

[3] City of Tracy, Standard Plans (Streets and Utilities), https://www.cityoftracy.org/home/showpublisheddocument/380/637505417952270000, accessed on March 20, 2023.
[4] City of Tracy, Standard Plans (Parks and Streetscapes), https://www.cityoftracy.org/home/showpublisheddocument/378/637505417853200000, accessed on March 20, 2023.

- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with the applicable zoning and other regulations governing scenic quality; and/or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

IMPACTS AND MITIGATION MEASURES

Impact 3.1-1: Project implementation may result in substantial adverse effects on scenic vistas. (Significant and Unavoidable)

As described in Chapter 2.0, Project Description, the proposed Project includes the annexation of the 21.92 -acre Project site into the City of Tracy city limits and subsequent development of the 20.92-acre Development Area. Development of the proposed Project would convert the 20.92-acre Development Area from its existing use into an industrial warehouse use. The Project would include the construction and subsequent operation of a warehouse building approximately 217,466 sf on the 20.92-acre Development Area. The 217,466-sf warehouse would include 206,593 sf of warehouse uses and 10,873-sf of office space. The proposed warehouse would include 31 dock level doors on the eastern side of the building. The maximum height of the one-story warehouse would be 42.5 feet, with the majority of the building at 40 feet. Landscaping would be provided throughout the site. The entire Project site would be annexed into the City.

The Project site is not designated as a scenic vista by the City of Tracy General Plan or the San Joaquin County General Plan, nor does it contain any unique or distinguishing features that would qualify the site for designation as a scenic vista. However, as noted previously, most of Tracy's scenic vistas and corridors are associated with the open space and agricultural resources of the surrounding Sphere of Influence (SOI) and Planning Area, and are a valued local asset for the community. The surrounding farming and grazing lands, and grassy hillsides of the Diablo coastal range, serve to situate the City in its local environment and landscape, and provide a reminder of its agricultural heritage.

Scenic views in the vicinity of the Project site include:

- Views of the Diablo Range. Rising from the Southwest portion of the Tracy Planning Area, this range extends from near sea level to 1,652 feet and provides a visual barrier between the Central Valley and the San Francisco Bay Area. Generally, the eastern slopes visible from Tracy have not been developed and contain sporadic tree groupings.
- Expansive Agricultural Lands. Agricultural lands that are used for row crops and grazing are found in the Project vicinity.

The above-referenced public views are primarily available to motorists traveling along the major transportation corridors at highway speed. In addition, these public views of foothills and mountains are characteristic of San Joaquin County, and exist throughout the region. The Project site is highly visible from West Schulte Road and portions of the project site may be visible from I-580 (between I-205 and I-5).

Implementation of the proposed Project would change the existing visual character of the site from vacant agricultural land to industrial uses. Impacts related to a change in visual character are largely subjective and very difficult to quantify. People have different reactions to the visual quality of a project or a project feature, and what is considered "attractive" to one viewer may be considered "unattractive" to other viewers. The Project site currently consists primarily of vacant agricultural lands and residential lands. Agricultural lands provide visual relief from urban and suburban developments, and help to define the character of a region.

As described above, Project implementation would introduce industrial uses, as well as supporting infrastructure on a site that is currently undeveloped. The proposed Project would include visual components that would assist in enhancing the appearance of the site following site development. The proposed warehouse design is contemporary and uses a variety of massing and materials for the scale of the building. The maximum height of the building components would be 42.5 feet, with the majority of the building at 40 feet. Architectural metal with varied textures and horizontal and vertical orientations would be used, while varying parapet cap heights would break up the long elevations both horizontally and vertically in order to conceal rooftop-mounted mechanical equipment. These techniques of breaking a long elevation into smaller elements with varied materials and colors would create architecturally interesting warehouse buildings while minimizing the visual impact of the large-scale structures.

As described in Chapter 2.0, landscaping improvements, such as new street trees and other vegetation landscaping, would be provided throughout the Project site, including along the site boundary. The landscape design and plant palette would complement the existing street and building/development landscape character. A variety of types and sizes of trees and shrubs will be provided on site to the north, west, and south of the proposed warehouse building and parking lot. Additionally, the proposed Project would include landscaping buffer zones, pursuant to General Plan Policy OSC-2.2-P1, at the interface of urban development and farmland in order to minimize conflicts between the uses and provide a visual shield.

The proposed Project would result in the conversion of the vacant land in the northern portions of the Project site, which would contribute to changes in the regional landscape and visual character of the area. In order to reduce visual impacts, development within the Project site is required to be consistent with the General Plan and the Tracy Zoning Ordinance which includes design standards in order to ensure quality and cohesive design of the Project site and ensure the public views from the transportation corridors would be of high quality. These standards include specifications for building height, massing, and orientation; exterior lighting standards and specifications; and landscaping standards. Implementation of the design standards would ensure quality design throughout the Project site, and result in a Project that would be internally cohesive while maintaining aesthetics similar to surrounding uses.

Nevertheless, the loss of the visual appearance of the existing agricultural land on the site would change the visual character of the Project site in perpetuity. Because the City's General Plan EIR considers public views of agricultural lands to be scenic resources and vistas to be local assets, and the proposed Project includes vacant agricultural land, this is considered a ***significant and unavoidable*** impact. There is no additional feasible mitigation available that would reduce this impact to a less than significant level.

Impact 3.1-2: Project implementation may substantially damage scenic resources within a State Scenic Highway. (Less than Significant)

As previously discussed, only one highway section in San Joaquin County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of I-580 from Interstate 5 to Interstate 205. This Designated Scenic Highway is located approximately 0.75 miles southwest of the Project site. The views from I-580 to the Project site are limited because of small hills, commercial buildings along I-580, and high speeds of travel. However, new development proposed by the Project in the viewsheds would have the potential to adversely affect a State-designated route.

The land in the southwestern corner of the Project site is the closest area that can be seen from I-580. However, the land between I-580 and the Project site is developed with several large single-story industrial/warehouse style buildings, located to the west of Hansen Road between the Delta Mendota Canal and the California Aqueduct, and smaller industrial/commercial buildings, located to the east and west of Hansen Road between the California Aqueduct and I-580. The proposed Project would result in development that is consistent in scale and type as compared to the existing and future uses (i.e., Cordes Ranch Specific Plan to the north and the proposed Costco Depot Annexation Project adjacent to the east) within the immediate area. As discussed in Impact 3.1-1, the City's General Plan EIR lists the City's scenic resources and vistas that are considered to be local assets, noting public views of the expansive agricultural lands resource within a State Scenic Highway. While the Project would permanently convert the agricultural land to urbanized use, potential views of the Project site are limited due to the topography and the existing urban development in the Project vicinity reducing potential views of the proposed development from the State Scenic Highway. Thus, implementation of the Project would not substantially damage scenic resources within a State Scenic Highway, as public views of the agricultural land from I-580 are limited; therefore, this is a ***less than significant*** impact.

Impact 3.1-3: In an urbanized area, Project implementation would not conflict with the applicable zoning and other regulations governing scenic quality. (Less than Significant)

The CEQA definition for an "Urbanized area" means a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile. In addition, to be considered an Urbanized area according to CEQA, projects must also be within the boundary of a map prepared by the U.S. Bureau of the Census which designates the area as urbanized area. According to the U.S. Bureau of the Census, the Project site is not mapped and designated as urbanized area. In

addition, the Project site is located within the City of Tracy, which has an estimated population of approximately 94,538 people; meaning the Project site is within an urbanized area and subjected to applicable zoning or other regulation governing scenic quality. Future development of the Project site would convert the Project site from its existing state to industrial warehouse use.

The proposed Project would result in a land use consistent with the planned development of the Project area. More specifically, the Project proposes the construction of an industrial warehouse development, which would be aesthetically similar to industrial uses currently developed or anticipated within the immediate area. The proposed Project is located just south of the recently approved Cordes Ranch Specific Plan and Specific Plan EIR, which anticipates the development of approximately 1,780 acres of land with commercial, office, business park industrial, and park and recreational uses. Additionally, an industrial warehouse Project, the Costco Depot Annexation Project, is currently (as of March 2023) proposed adjacent east of the Project site. Therefore, while the Project would result in a loss of rural agricultural land, it would result in the development of an industrial warehouse consistent with the City's design guidelines in an area of Tracy currently planned for and developed with similarly scaled warehouses and industrial.

Overall, Project implementation would not conflict with the applicable zoning and other regulations governing scenic quality. This impact is ***less than significant***.

Impact 3.1-4: Project implementation may result in light and glare impacts. (Less than Significant)

Implementation of the proposed Project would introduce new sources of light and glare into the vacant Project site. New sources of glare would occur primarily from the windshields of vehicles travelling to and from the Project site and from vehicles parked at the site. Reflective building materials would not be used. The warehouse building would consist mainly of concrete paneling with accent paint. Concrete paneling bump outs with accent paint and painted metal canopies would be provided near doorways. The glass windows would result in some reflection. However, the landscaping on-site would include a variety of shade trees throughout the Project site and the perimeter of the site, including parking areas, would be landscaped with a variety of shrubs and trees per the preliminary landscape plan. The proposed landscaping would assist in shielding glare resulting from the proposed building materials and glass windows.

The City's Standard Plans do not have regulations limiting glare. Rather, the City addresses light and glare issues on a case-by-case basis during project approval, which typically involve the addition of requirements as a condition of project approval to shield and protect against light splashing from one development to adjacent properties. The proposed Project +would be reviewed by the City during Project approval.

Proposed Project lighting includes internal street lighting and exterior lighting around the eastern and southern walls of the warehouse throughout the Project site. Employee vehicle parking lot and truck and trailer parking areas would be illuminated with standard downward pointing lights affixed to a 25-foot light pole. Further, the site fixtures would be controlled by a lighting control panel with an astronomical time clock. The lighting fixtures would be designed to provide even

light distribution and to reduce any light spillover onto neighboring rural properties. However, the LED lamps provide a higher level of perceived brightness with less energy than other lamps.

The City of Tracy Standard Plan #146 establishes street light standards, and requirements for light illumination to assist in reducing light impacts. Additionally, City of Tracy Standard Plan #141 establishes standards for lighting parking areas, requiring that illuminated parking facilities provide a minimum 1-foot candle. Further, Section 10.08.400 of the Municipal Code specifies that the site plan and architectural review package includes an exterior lighting standards and devices review. It should be noted that the City addresses light and glare issues on a case-by-case basis during project approval and would require the Project to shield and protect against light spillover onto adjacent properties. Compliance with these existing City regulations would ensure that his impact is ***less than significant***.

This section provides an overview of the agricultural crops in San Joaquin County and the City of Tracy, agricultural capability of the soils on the Project site, and existing site conditions. This section concludes with an evaluation of the impacts related to agricultural resources and recommendations for mitigating impacts as needed. Information in this section is derived primarily from the California Important Farmlands Map (California Department of Conservation, 2016), the California Land Conservation (Williamson) Act Status Report (California Department of Conservation, 2010), the San Joaquin County Crop Report (San Joaquin County Agricultural Commissioner, 2022), and the Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS, 2016).

No comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic. Full comments received are included in Appendix A.

As discussed in the Initial Study for the proposed Project, the project site is not forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526). The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. Additionally, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use; thus, this CEQA topic is not relevant to the proposed Project, and no impact would occur. As such, timberland, forestland, and forest resources will not be addressed further in this EIR. The Initial Study is included in Appendix A.

3.2.1 ENVIRONMENTAL SETTING

SAN JOAQUIN COUNTY AGRICULTURE

San Joaquin County occupies a central location in California's vast agricultural heartland, the San Joaquin Valley. The County's Agricultural Commissioner's most recent published Crop Report (2021) contains the following information about agriculture in the County.

Agricultural Value

San Joaquin County has a total land area of 1,391 square miles. The total acreage of crop land in the county is approximately 784,800 acres. The gross value of agricultural production in San Joaquin County for 2021 was $3,193,359,000 which represents a 5.34 percent increase in value of $161,955,000 over the 2020.

Table 3.2-1 lists the top nine crop commodities in San Joaquin County in 2020 and 2021.

TABLE 3.2-1: SUMMARY COMPARISON OF CROP VALUES

PRODUCT TYPE	*2020 VALUE*	*2021 VALUE*
Field Crops	$235,304,000	$236,790,000
Vegetable Crops	$260,363,000	$250,386,000
Fruit and Nut Crops	$1,603,784,000	$1,726,962,000
Nursery Products	$132,255,000	$138,155,000
Livestock and Poultry	$124,305,000	$128,628,000
Livestock and Poultry Products	$622,507,000	$654,239,000
Seed Crops	$4,090,000	$4,029,000
Apiary Products	$48,671,000	$54,045,000
Other Agriculture	$15,258,000	$15,725,000

SOURCE: SAN JOAQUIN COUNTY AGRICULTURAL REPORT, 2021.

AGRICULTURAL CAPABILITY

The California Department of Conservation Farmland Mapping and Monitoring Program identifies lands that have agriculture value and maintains a statewide map of these lands called the Important Farmlands Inventory (IFI). IFI classifies land based upon the productive capabilities of the land, rather than the mere presence of ideal soil conditions.

The suitability of soils for agricultural use is just one factor for determining the productive capabilities of land. Suitability is determined based on many characteristics, including fertility, slope, texture, drainage, depth, and salt content. A variety of classification systems have been devised by the state to categorize soil capabilities. The two most widely used systems are the Capability Classification System and the Storie Index. The Capability Classification System classifies soils from Class I to Class VIII based on their ability to support agriculture with Class I being the highest quality soil. The Storie Index considers other factors such as slope and texture to arrive at a rating. The IFI is in part based upon both of these two classification systems.

Soil Capability Classification System

The Soil Capability Classification System takes into consideration soil limitations, the risk of damage when soils are used, and the way in which soils respond to treatment. Capability classes range from Class I soils, which have few limitations for agriculture, to Class VIII soils that are unsuitable for agriculture. Generally, as the rating of the capability classification increases, yields and profits are more difficult to obtain. A general description of soil classifications, as defined by the NRCS is provided in Table 3.2-2 below.

TABLE 3.2-2: SOIL CAPABILITY CLASSIFICATION

CLASS	*DEFINITION*
I	Soils have slight limitations that restrict their use.
II	Soils have moderate limitations that restrict choice plants or that require moderate conservation practices.
III	Soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.
IV	Soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.
V	Soils are not likely to erode but have other limitations; impractical to remove that limits their use largely to pasture or range, woodland, or wildlife habitat.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture or range, woodland, or wildlife habitat.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.
VIII	Soils and landforms have limitations that preclude their use for commercial plans and restrict their use to recreation, wildlife habitat, water supply, or aesthetic purposes.

SOURCE: USDA SOIL CONSERVATION SERVICE.

Storie Index Rating System

The Storie Index Rating system ranks soil characteristics according to their suitability for agriculture from Grade 1 soils (80 to 100 rating) which have few or no limitations for agricultural production, to Grade 6 soils (less than 10) which are not suitable for agriculture. Under this system, soils deemed less than prime can function as prime soils when limitations such as poor drainage, slopes, or soil nutrient deficiencies are partially or entirely removed. The six grades, ranges in index rating, and definition of the grades, as defined by the NRCS, are provided below in Table 3.2-3.

TABLE 3.2-3: STORIE INDEX RATING SYSTEM

GRADE	*INDEX RATING*	*DEFINITION*
1	80 – 100	Few limitations that restrict their use for crops
2	60 – 80	Suitable for most crops, but have minor limitations that narrow the choice of crops and have a few special management needs
3	40 – 60	Suited to a few crops or to special crops and require special management
4	20 – 40	If used for crops, severely limited and require special management
5	10 – 20	Not suited for cultivated crops, but can be used for pasture and range
6	Less than 10	Soil and land types generally not suited to farming

SOURCE: USDA SOIL CONSERVATION SERVICE, SOIL SURVEY OF YOLO COUNTY, CALIFORNIA, 1972.

In addition to soil suitability, other factors for determining the agricultural value of land include whether soils are irrigated, the depth of soil, water-holding capacity, and physical and chemical characteristics. Areas considered to have the greatest agricultural potential are designated as Prime Farmland or Farmland of Statewide Importance.

Important Farmlands

The Farmland Mapping and Monitoring Program (FMMP) is a farmland classification system administered by the California Department of Conservation. Important farmland maps are based

on the Land Inventory and Monitoring criteria, which classify a land's suitability for agricultural production based on both the physical and chemical characteristics of soils, and the actual land use. The system maps five categories of agricultural land, which include important farmlands (prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance) and grazing land, as well as three categories of non-agricultural land, which include urban and built-up land, other land, and water area.

IMPORTANT FARMLANDS IN SAN JOAQUIN COUNTY

Data from the Department of Conservation indicates that approximately 1,858 acres of Prime Farmland in the County was developed for other uses between 2016 and 2018, resulting in an existing total of 381,934 acres of Prime Farmland (42 percent of agricultural land). The remaining agricultural land is comprised of Farmland of Statewide Importance (9 percent), Unique Farmland (9 percent), Farmland of Local Importance (7 percent), and Grazing Land (14 percent). The types and acreages of farmland in 2016 and 2018 are shown in Table 3.2-4.

TABLE 3.2-4: SAN JOAQUIN COUNTY FARMLANDS SUMMARY AND CHANGE BY LAND USE CATEGORY

LAND USE CATEGORY	*2016-2018 ACREAGE CHANGES*							
	TOTAL ACREAGE INVENTORIED				*ACRES LOST*	*ACRES GAINED*	*TOTAL ACREAGE CHANGED*	*NET ACREAGE CHANGED*
	2016		*2018*		*(-)*	*(+)*		
	Acres	*Percent*	*Acres*	*Percent*				
Prime Farmland	381,634	42%	381,984	42%	1,858	2,210	4,068	352
Farmland of Statewide Importance	82,618	9%	82,163	9%	921	466	1,387	-455
Unique Farmland	81,920	9%	85,694	9%	402	4,174	4,576	3,772
Farmland of Local Importance	68,903	8%	65,944	7%	5,507	2,547	8,054	-2,960
Important Farmland Subtotal	**615,075**	**67%**	**615,785**	**67%**	**8,688**	**9,397**	**18,085**	**709**
Grazing Land	129,760	14%	126,902	14%	2,893	37	2,930	-2,856
Agricultural Land Subtotal	**744,835**	**82%**	**742,687**	**81%**	**11,581**	**9,434**	**21,015**	**-2,147**
Urban and Built-up Land	95,329	10%	97,541	11%	121	2,332	2,453	2,211
Other Land	60,602	7%	60,987	7%	922	1,312	2,234	390
Water Area	11,836	1%	11,382	1%	680	226	906	-454
Total Area Inventoried	**912,602**	**100%**	**912,597**	**100%**	**13,304**	**13,304**	**26,608**	**0**

SOURCE: CA DEPARTMENT OF CONSERVATION, DIVISION OF LAND RESOURCE PROTECTION TABLE A-30, 2018.

EXISTING SITE CONDITIONS

As described in Chapter 2.0, Project Description, the Project site includes two distinct planning boundaries, including the 21.92-acre Annexation Area (or Project site) and the 20.92-acre Development Area. The 21.92-acre Project site encompasses developed and undeveloped land previously used for agricultural and residential purposes. The southern portion of the Development Area is currently developed with three single-family residences and six ancillary structures. The remainder of the Development Area consists primarily of ruderal grasses which are

regularly disced. The agricultural land on the Project site is not under a Williamson Act contract or conservation easement.

Surrounding Land Uses

The Project site is located immediately south of the intersection of West Schulte Road and Hansen Way. The Project site is bound by Hansen Road to the west, West Schulte Road to the north, the Delta Mendota Canal to the south, and a private driveway and vacant land on the east. Surrounding land uses include the Cal Fire Station 26 and vacant land to the west, vacant land previously used for agricultural uses to the east, two industrial warehouses to the north, and the Delta Mendota Canal and agricultural land to the south. The Delta Mendota Canal is a nearly 120-mile-long aqueduct that is part of the Central Valley Project. Its function is to restore water to the San Joaquin River drainage that has been diverted at upstream locations to the southeast, notably, the Friant Dam located roughly 15 miles northeast of Fresno. The area north of the project site is part of the Cordes Ranch Specific Plan. Additionally, an industrial warehouse Project, the Costco Depot Annexation Project, is currently (as of April 2023) proposed adjacent east of the Project site.

Project Site Farmland Characteristics

The State of California Department of Conservation FMMP and San Joaquin County GIS data were used to illustrate the farmland characteristics for the Project site. Farmlands on the Project site are identified in Figure 3.2-1. The farmland classifications for the site and surrounding area are described below.

PRIME FARMLAND

Prime farmland is farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

There is no Prime Farmland in the Project site. Prime Farmlands are located immediately east of the Project site and south of the Project site (opposite the Delta Mendota Canal).

FARMLAND OF STATEWIDE IMPORTANCE

Farmland of Statewide Importance is farmland with characteristics similar to those of prime farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

There is no Farmland of Statewide Importance within the Project site, or in the immediate vicinity.

UNIQUE FARMLAND

Unique farmland is farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or

vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

There is no Unique Farmland within the Project site, or adjacent to the site. Unique Farmland is located southwest of the Project site, west of Interstate 580.

FARMLAND OF LOCAL IMPORTANCE

Farmland of Local Importance is land of importance to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee.

There are 8.85 acres of Farmland of Local Importance within the Project site. Farmland of Local Importance is located adjacent to the Project site to the west, and north of the Project site opposite the industrial warehouses north of Schulte Road. Farmland of Local Importance is also located in the vicinity of the Project site to the west, opposite Hansen Road.

GRAZING LAND

Grazing Land includes land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

Grazing Land is located in the general vicinity of the Project site to the south (north and south of the California Aqueduct and Interstate 580).

SEMI-AGRICULTURAL AND RURAL COMMERCIAL LAND

Semi-Agricultural and Rural Commercial Land includes farmsteads, agricultural storage and packing sheds, unpaved parking areas, composting facilities, equine facilities, firewood lots, and campgrounds.

There are 9.29 acres of Semi-Agricultural and Rural Commercial Land in the Project site. Semi-Agricultural and Rural Commercial Land is located in the general vicinity of the Project site to the west (north of the Delta Mendota Canal) and south (north and south of the California Aqueduct along Hansen Road).

URBAN AND BUILT-UP LAND

Urban and Built-Up Land includes land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

There is no Urban and Built-up Land within the Project site. Urban and Built-up Land is located to the north of the Project site across Schulte Road and to the southwest of the Project site south of Delta Mendota Canal.

Soils and Farmland Characteristics

A Custom Soil Survey was completed for the Project site using the NRCS Web Soil Survey program. The NRCS Soils Map is provided on Figure 3.6-1 in Section 3.6, Geology and Soils. As shown in Figure 3.6-1, capay clay, zero to one percent slopes, is the only soil type within the Project site. The Capay series consists of very deep, moderately well and somewhat poorly drained soils that formed in fine textured alluvium derived from mostly sandstone and shale. Capay soils are on flood basins, alluvial fans, interfan basins and basin rims. They formed in fine textured alluvium derived from sandstone and shale or other mixed rock sources. They have a moderately well and somewhat poor drainage and a slow to very slow permeability. Common uses for this series include: growing irrigated crops such as tomatoes, sugar beets, beans or grain sorghum, dry farmed to small grains, and irrigated and dryland pasture. Native vegetation is a dense stand of annual grasses and forbs.

Williamson Act Contracts

The Williamson Act authorizes each County to establish an agricultural preserve. Land that is within the agricultural preserve is eligible to be placed under a contract between the property owner and County that would restrict the use of the land to agriculture in exchange for a tax assessment that is based on the yearly production yield. The contracts have a 10-year term that is automatically renewed each year, unless the property owner requests a non-renewal or the contract is cancelled. If the contract is cancelled the property owner is assessed a fee of up to 12.5 percent of the property value.

The Project site is not under a Williamson Act contract, nor are any of the parcels that are located adjacent to the Project site under a current contract. The nearest parcel (APN: 251-320-15) under a Williamson Act contract is approximately 0.75 mile to the south of the Project site.

3.2.2 REGULATORY SETTING

FEDERAL

Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) is intended to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It ensures that, to the extent practicable, federal programs are compatible with state and local units of government as well as private programs and policies to protect farmland. Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency. For the purpose of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for crop production. In fact, the land can be forest land, pastureland, cropland, or other land but does not include water bodies or land developed for urban land uses (i.e., residential, commercial, or industrial uses).

The NRCS administers the Farmland Protection Program. NRCS uses a land evaluation and site assessment (LESA) system to establish a farmland conversion impact rating score on proposed sites of federally funded and assisted projects. This score is used as an indicator for the project sponsor to consider alternative sites if the potential adverse impacts on the farmland exceed the recommended allowable level. The assessment is completed on form AD-1006, Farmland Conversion Impact Rating. The sponsoring agency completes the site assessment portion of the AD-1006, which assesses non-soil related criteria such as the potential for impact on the local agricultural economy if the land is converted to non-farm use and compatibility with existing agricultural use.

The Project site and adjacent parcels will not be completed by a federal agency, or with assistance from a federal agency. Therefore, the Project will not be subject to the FPPA.

STATE

Williamson Act

The California Land Conservation Act of 1965, commonly known as the Williamson Act, was established based on numerous State legislative findings regarding the importance of agricultural lands in an urbanizing society. Policies emanating from those findings include those that discourage premature and unnecessary conversion of agricultural land to urban uses and discourage discontinuous urban development patterns, which unnecessarily increase the costs of community services to community residents. As stated above, the Project site is not under a Williamson Act contract, nor are any of the parcels that are located adjacent to the Project site under a current contract.

Farmland Security Zones

In 1998, the state legislature established the Farmland Security Zone (FSZ) program. FSZs are similar to Williamson Act contracts, in that the intention is to protect farmland from conversion. The main difference however, is that the FSZ must be designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. The term of the contract is a minimum of 20 years. The property owners are offered an incentive of greater property tax reductions when compared to the Williamson Act contract tax incentives; the incentives were developed to encourage conservation of prime farmland through FSZs. The non-renewal and cancellation procedures are similar to those for Williamson Act contracts.

The Project site and the adjacent parcels are not within the FSZ program.

California Government Code Section 56064

This section of the Government Codes defines “Prime agricultural land” as follows:

- Prime agricultural land means an area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than an agricultural use and that meets any of the following qualifications:

- Land that qualifies, if irrigated, for rating as class I or class II in the USDA Natural Resources Conservation Service land use capability classification, whether or not land is actually irrigated, provided that irrigation is feasible.
- Land that qualifies for rating 80 through 100 Storie Index Rating.
- Land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Range and Pasture Handbook, Revision 1, December 2003.
- Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre.
- Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years.

LOCAL

Local Agency Formation Commission Boundary Controls

The San Joaquin Local Agency Formation Commission (LAFCo) is responsible for coordinating orderly amendments to local jurisdictional boundaries, including annexations. Annexation of the Project site into the City of Tracy would be subject to LAFCo approval, and LAFCo's decision is governed by state law (Gov't Code § 56001 et seq.) and the local LAFCo Policies and Procedures. State law requires LAFCos to consider agricultural land and open space preservation in all decisions related to expansion of urban development. LAFCO's definition of Prime Agriculture land refers to California Government Code Section 56064, which is described above.

City of Tracy General Plan

The City of Tracy General Plan designates the Project site as Industrial (I). The General Plan includes several policies relevant to agricultural resources. General Plan policies and implementation measures applicable to the Project are identified below:

POLICIES: LAND USE

- LU-6.1-P9. New industrial or mining uses shall be designed to not adversely impact adjacent uses, particularly residential neighborhoods, with respect to, but not limited to, noise, dust and vibration, water quality, air quality, agricultural resources and biological resources.

POLICIES: OPEN SPACE AND CONSERVATION

- OSC-2.1-P1: The City shall support San Joaquin County's efforts to preserve agricultural uses in the Tracy Planning Area.

- OSC-2.1-P2: The City shall support San Joaquin County policies and zoning actions that maintain agricultural lands in viable farming units for those areas not currently designated for urban uses.
- OSC-2.1-P5: The City shall work cooperatively with non-profit organizations, such as land trusts, to preserve agricultural land in the Planning Area.
- OSC-2.2-P1. Development projects shall have buffer zones, such as roads, setbacks and other physical boundaries, between agricultural uses and urban development. These buffer zones shall be of sufficient size to protect the agriculture operations from the impacts of incompatible development and shall be established based on the proposed land use, site conditions and anticipated agricultural practices. Buffers shall be located on the land where the use is being changed, and shall not become the maintenance responsibility of the City.
- OSC-2.2-P2. Land uses allowed near agricultural operations should be limited to those not negatively impacted by dust, noise and odors.

City of Tracy Agricultural Mitigation Fee Program

Tracy Municipal Code Chapter 13.28 establishes the City's Agricultural Mitigation Fee Program, which authorizes the collection of development impact fees to offset costs associated with the loss of productive agricultural lands converted for private urban uses (including residential, commercial, industrial, or other urban uses) within the City. Agricultural mitigation fees are collected by the City at the time that building permits are issued. Fees collected under Chapter 13.28 may be used as fair compensation for farmland conservation easements or farmland deed restrictions that conserve existing agricultural land.

It is noted that the City's Agricultural Mitigation Fee Program defines “Agricultural land” or “farmland” as any land identified by the California Department of Conservation's Farmland Mapping and Monitoring Program and the Tracy General Plan EIR as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland.

City of Tracy Right to Farm Ordinance

Tracy Municipal Code Chapter 10.24 establishes the City’s "Right to Farm" ordinance, which is to declare farming operations not to be a nuisance and to recognize persons and/or entities right to farm. The ordinance establishes the City’s policy to preserve, protect and encourage the use of viable agricultural land for the production of food and other agricultural products. Chapter 10.24 identifies that when nonagricultural land uses extend into or approach agricultural areas, conflicts may arise between such land uses and agricultural operations that often result in the involuntary curtailment or cessation of agricultural operations, and discourage investment in such operations.

Municipal Code Chapter 10.24 is intended to reduce the occurrence of such conflicts between nonagricultural and agricultural land uses within the City through requiring the transferor of any property in the City to provide a disclosure statement describing that the City permits agricultural operations, including those that utilize chemical fertilizers and pesticides. The disclosure statement notifies the purchaser that the property being purchased may be located close to agricultural lands

and operations and that the purchaser may be subject to inconvenience or discomfort arising from the lawful and proper use of agricultural chemical and pesticides and from other agricultural activities, including without limitation, cultivation, plowing, spraying, irrigation, pruning, harvesting, burning of agricultural waste products, protection of crops and animals from depredation, and other activities which occasionally generate dust, smoke, noise and odor. In addition, prior to issuance of a city building permit for construction of a residential building, the owner of the property upon which the building is to be constructed is required to file a disclosure statement acknowledging the proximity of agricultural operations and the potential for inconvenience or nuisance associated with those uses.

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

The San Joaquin County Multi-Specific Habitat Conservation and Open Space Plan (SJMSCP) provides comprehensive measures for compensation and avoidance of impacts on various biological resources, which includes ancillary benefits to agricultural resources. For instance, many of the habitat easements that are purchased or facilitated by the SJMSCP program are targeted for the protection of Swainson's hawk or other sensitive species habitat that are dependent on agricultural lands. The biological mitigation for these species through the SJMSCP includes the purchase of certain conservation easements for habitat purposes; however, the conservation easements are placed over agricultural land, such as alfalfa and row crops (not vines or orchards). As such, SJMSCP fees paid to San Joaquin Council of Governments (SJCOG) as administrator of the SJMSCP will result in the preservation of agricultural lands in perpetuity.

3.2.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on agricultural resources if it will:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract;
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: The proposed Project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses. (Less than Significant)

As shown on Figure 3.2-1, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is not located on the Project site. As such, development of the proposed Project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

Additionally, the proposed conversion of the Project site from agricultural to industrial uses is consistent with the City's overall planning vision, as the Tracy General Plan designates the Project site as Industrial, and therefore assumes the site would be developed with Industrial uses. The General Plan EIR anticipated development of the Project site as part of the overall evaluation of the build out of the City. The General Plan EIR addressed the conversion and loss of agricultural land that would result from the build out of the General Plan (Amendments to the General Plan Draft EIR, pp. 67 through 71). The General Plan EIR provides a discussion of the various General Plan policies, such as Objective OSC-2.1-P2 and OSC-2.1-P3, and the agricultural conversion fees, including the City's agricultural mitigation fee program and SJMSCP fee. The General Plan EIR concluded that although these policies and regulations would somewhat reduce impacts related to the conversion of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, the permanent loss of farmland would result in a significant and unavoidable impact to agricultural resources.

Overall, because Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is not located on the Project site as classified under the FMMP, this is considered a ***less than significant*** environmental impact.

Impact 3.2-2: The proposed Project would not conflict with existing zoning for agricultural use, or Williamson Act Contracts. (Less than Significant)

The Project site is not under a Williamson Act contract. The Project site is zoned General Agriculture (AG-40) by San Joaquin County. The AG-40 zoning designation is established to preserve agricultural lands for the continuation of commercial agriculture enterprises. The San Joaquin County LAFCo would require the Project site to be pre-zoned by the City of Tracy in conjunction with the proposed annexation. The City's pre-zoning would include the following zoning designation: Light Industrial (M-1). The pre-zoning would go into effect upon annexation into the City of Tracy.

Although the Project site is currently zoned for agricultural use by the County, the proposed Project includes pre-zoning consistent with the proposed industrial use and the City's Industrial

land use designation for the site. Conversion of the Project site from agricultural to urban uses has been anticipated by the City since adoption of the General Plan and associated EIR. Therefore, implementation of the proposed Project would have a ***less than significant*** impact relative to this topic, and no mitigation is required.

Impact 3.2-3: The proposed Project would not involve other changes in the environment which, due to their location or nature, could result in conversion of adjacent agricultural Farmland, to non-agricultural use or conversion of forest land to non-forest use. (Less than Significant)

Neighboring agricultural land, including Prime Farmland and Farmland of Local Importance, are located to the west, south, and east the Project site as shown on Figure 3.2-1. Industrial warehouses would be developed on the 20.92-acre Development Area with implementation of the proposed Project.

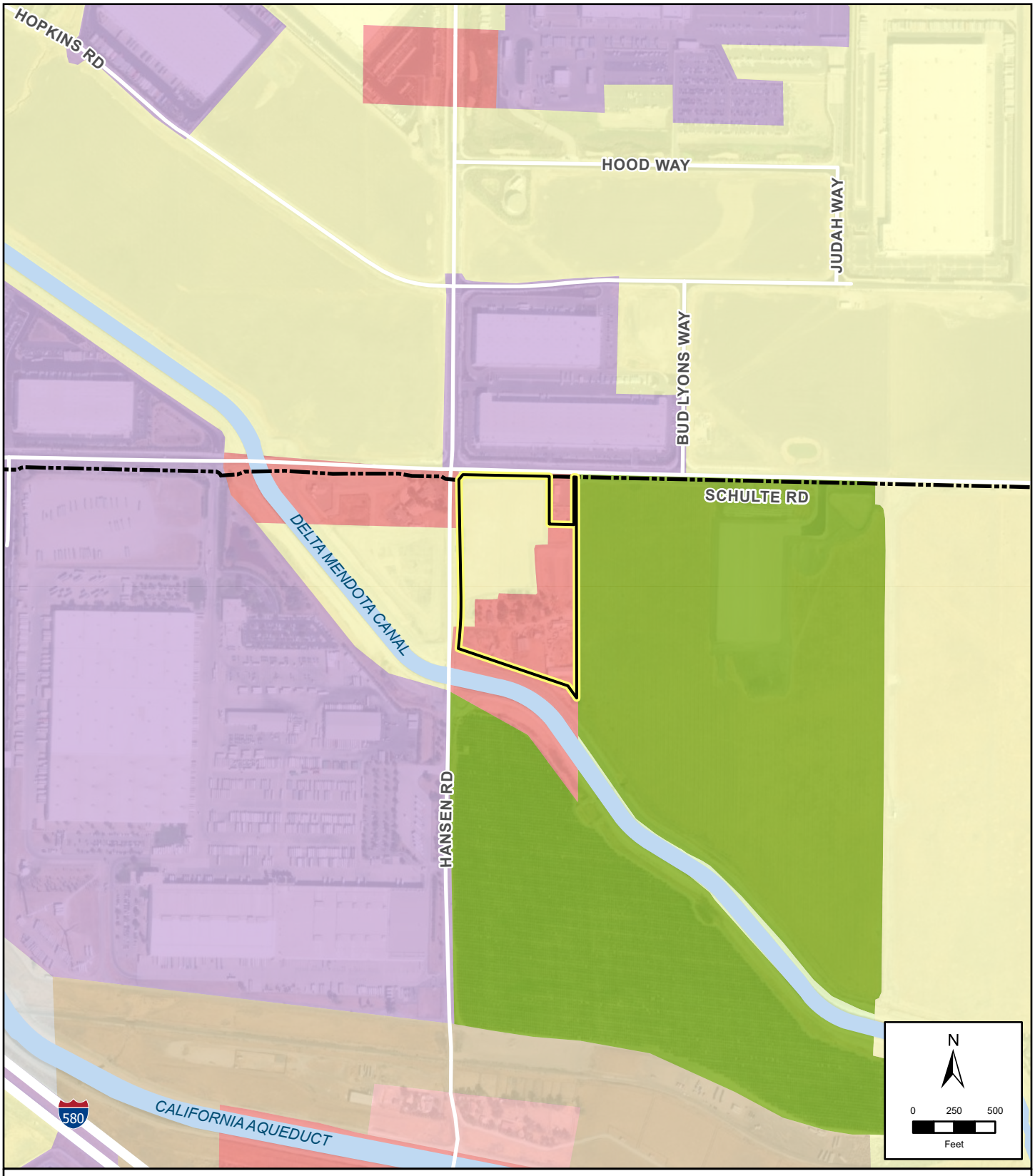
The City's General Plan anticipates that agricultural lands to the north, east, south, and west of the Project site would develop with urban uses. Existing agricultural lands that are located adjacent to the Project site to the east and south may be impacted by the increased human presence on the Project site. The City's Right-to-Farm Ordinance reduces the potential for conflict between existing agricultural lands and adjacent uses. The notification procedures in the ordinance serves to inform landowners and developers of non-agricultural uses in the area and the expectations with regard to agricultural activities in order to reduce complaints.

The City of Tracy General Plan Amendment to the Draft EIR (2006) identifies that the location or nature of the General Plan could result in the conversion of farmland to non-agricultural use and identified General Plan policies (i.e., OSC-2.1-P2, OSC-2.1-P3, OSC-2.2-P1, CC-4.1-P2, and CC-4.1-P3) to support the continuation of working farmland and agricultural land to maintain agricultural use adjacent to non-agricultural uses. However, the EIR concluded that implementation of the General Plan would result in a significant and unavoidable impact due to the additional and incompatible urban development adjacent to agricultural uses (City of Tracy General Plan Amendment to the Draft EIR, 2006, pp. 72).

General Plan Policy OSC-2.2-P-1 requires buffer zones, such as roads, setbacks and other physical boundaries, at the interface of urban development and farmland in order to minimize conflicts between the uses. These buffer zones are required to be of sufficient size to protect the agriculture operations from the impacts of incompatible development and be established based on the proposed land use, site conditions and anticipated agricultural practices. Additionally, Policy OSC-2.2-P-2 requires that the land uses near agricultural operations be limited to those not negatively impacted by dust, noise, and odors.

Neither the City's Right-to-Farm Ordinance nor its General Plan Policies define the width or specifics of desired buffer types for agricultural uses. Most of the proposed development would be buffered from existing agricultural operations by Old Schulte Road on the eastern side of the Project site and by the Delta Mendota Canal on the southern side of the Project site. Additionally, an industrial warehouse Project, the Costco Depot Annexation Project, is currently (as of July 2023)

proposed adjacent east of the Project site. The proposed Project includes parking areas, stormwater drainage areas, and and landscaping along the perimeter of the site. These areas would provide a buffer between agricultural uses and the Project site. As discussed previously, the City's Right to Farm Ordinance is intended to reduce the occurrence of such conflicts between nonagricultural and agricultural land uses within the City through requiring the transferor of any property in the City to provide a disclosure statement describing that the City permits agricultural operations, including those that utilize chemical fertilizers and pesticides. The proposed project is not anticipated to lead to the permanent indirect conversion of offsite agricultural lands to a non-agricultural use. The project would not extend infrastructure or roadway access to offsite agricultural lands. Therefore, impacts associated with the potential to result in conflicts with adjacent agricultural lands or indirectly cause conversion of agricultural lands are ***less than significant***.



LEGEND

- Development Area
- Tracy City Limits
- Prime Farmland
- Unique Farmland
- Grazing Land
- Farmland of Local Importance
- Vacant or Disturbed Land
- Rural Residential Land
- Semi-agricultural and Rural Commercial Land
- Urban and Built-Up Land

Sources: California Department of Conservation Farmland Mapping and Monitoring Program; ArcGIS Online World Imagery Map Service; San Joaquin County GIS. Map date: December 20, 2021

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 3.2-1. Important Farmland Map

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Path: C:\GIS_00\San Joaquin\Tracy\SchulteRoad\Tracy\SchulteRoad.aprx

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This section describes the regional air quality, current attainment status of the air basin, local sensitive receptors, emission sources, and impacts that are likely to result from Project implementation. The analysis contained in this section is intended to be at a project-level, and covers impacts associated with the conversion of the entire site to urban uses. Following this discussion is an assessment of consistency of the proposed Project with applicable policies and local plans. The Greenhouse Gases, Climate Change, and Energy analysis is located in a separate section of this document (*see* Chapter 3.7 – Greenhouse Gases, Climate Change and Energy). This air quality section is based in part on the following technical studies: *Air Quality and Land Use Handbook: A Community Health Perspective* (California Air Resources Board [CARB], 2007), *Guide for Assessing and Mitigation Air Quality Impacts* (San Joaquin Valley Air Pollution Control District [SJAVPCD], 2002), *Guidance for Assessing and Mitigating Air Quality Impacts - 2015* (SJAVPCD, 2015), and CalEEMod *(v.2022.1)*.

Two comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic: one from the State of California Department of Justice (December 20, 2023), and the other from the San Joaquin Valley Air Pollution Control District (January 16, 2024). The commenter from the California Department of Justice provided a guidance document *Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act*, as guidance for the City to consider in its evaluation of the proposed Project. The commentor from the San Joaquin Air Pollution Control District provided recommended mitigation measures and identified rules, regulations, and best practices for environmental analysis of the Project's air quality and greenhouse gas emissions. These comments are addressed within this section. The full comments are included in Appendix A.

3.3.1 ENVIRONMENTAL SETTING

SAN JOAQUIN VALLEY AIR BASIN

The City of Tracy (City) is in the northern portion of the San Joaquin Valley Air Basin (SJVAB). The SJVAB consists of eight counties: Fresno, Kern (western and central), Kings, Tulare, Madera, Merced, San Joaquin, and Stanislaus. Air pollution from significant activities in the SJVAB includes a variety of industrial-based sources as well as on- and off-road mobile sources. These sources, coupled with geographical and meteorological conditions unique to the area, stimulate the formation of unhealthy air.

The SJVAB is approximately 250 miles long and an average of 35 miles wide. It is bordered by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. There is a slight downward elevation gradient from Bakersfield in the southeast end (elevation 408 feet) to sea level at the northwest end where the valley opens to the San Francisco Bay at the Carquinez Straits. At its northern end is the Sacramento Valley, which comprises the northern half of California's Central Valley. The bowl-shaped topography inhibits movement of pollutants out of the valley (San Joaquin Valley Air Pollution Control District (SJVAPCD), 2015).

Climate

The SJVAB is in a Mediterranean climate zone and is influenced by a subtropical high-pressure cell most of the year. Mediterranean climates are characterized by sparse rainfall, which occurs mainly in winter. Summers are hot and dry. Summertime maximum temperatures often exceed 100°F in the valley.

The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in temperature inversions in the valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface. Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500 to 3,000 feet).

Winter-time high pressure events can often last many weeks, with surface temperatures often lowering into the 30°F. During these events, fog can be present and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutants to a few hundred feet (SJVAPCD, 2015).

Wind Patterns

Wind speed and direction play an important role in dispersion and transport of air pollutants. Wind at the surface and aloft can disperse pollution by mixing and transporting it to other locations.

Especially in summer, winds in the San Joaquin Valley most frequently blow from the northwest. The region's topographic features restrict air movement and channel the air mass towards the southeastern end of the valley. Marine air can flow into the basin from the San Joaquin River Delta and over Altamont Pass and Pacheco Pass, where it can flow along the axis of the valley, over the Tehachapi pass, into the Southeast Desert Air Basin. This wind pattern contributes to transporting pollutants from the Sacramento Valley and the Bay Area into the SJVAB. Approximately 27 percent of the total emissions in the northern portion, 11 percent of total emissions in the central region, and 7 percent of total emission in the south valley of the SJVAB are attributed to air pollution transported from these two areas.[1] The Coastal Range is a barrier to air movement to the west and the high Sierra Nevada range is a significant barrier to the east (the highest peaks in the southern Sierra Nevada reach almost halfway through the Earth's atmosphere). Many days in the winter are marked by stagnation events where winds are very weak. Transport of pollutants during winter can be very limited. A secondary but significant summer wind pattern is from the southeast and can be associated with nighttime drainage winds, prefrontal conditions, and summer monsoons.

Two significant diurnal wind cycles that occur frequently in the valley are the sea breeze and mountain-valley upslope and drainage flows. The sea breeze can accentuate the northwest wind flow, especially on summer afternoons. Nighttime drainage flows can accentuate the southeast movement of air down the valley. In the mountains during periods of weak synoptic scale winds, winds tend to be upslope during the day and downslope at night. Nighttime and drainage flows are

[1] SJVAPCD. Frequently Asked Questions, http://www.valleyair.org/general_info/frequently_asked_questions.htm#What%20is%20being%20done%20to%20improve%20ai r%20quality%20in%20the%20San%20Joaquin%20Valley, accessed April 8, 2024.

especially pronounced during the winter when flow from the easterly direction is enhanced by nighttime cooling in the Sierra Nevada. Eddies can form in the valley wind flow and can recirculate a polluted air mass for an extended period.

Temperature

Solar radiation and temperature are particularly important in the chemistry of ozone formation. The SJVAB averages over 260 sunny days per year. Photochemical air pollution (primarily ozone) is produced by the atmospheric reaction of organic substances (such as volatile organic compounds) and nitrogen dioxide under the influence of sunlight. Ozone concentrations are very dependent on the amount of solar radiation, especially during late spring, summer, and early fall. Ozone levels typically peak in the afternoon. After the sun goes down, the chemical reaction between nitrous oxide and ozone begins to dominate. This reaction tends to scavenge and remove the ozone in the metropolitan areas through the early morning hours, resulting in the lowest ozone levels, possibly reaching zero at sunrise in areas with high nitrogen oxides emissions. At sunrise, nitrogen oxides tend to peak, partly due to low levels of ozone at this time and also due to the morning commuter vehicle emissions of nitrogen oxides.

Generally, the higher the temperature, the more ozone formed, since reaction rates increase with temperature. However, extremely hot temperatures can "lift" or "break" the inversion layer. Typically, if the inversion layer does not lift to allow the buildup of contaminants to be dispersed, the ozone levels will peak in the late afternoon. If the inversion layer breaks and the resultant afternoon winds occur, the ozone will peak in the early afternoon and decrease in the late afternoon as the contaminants are dispersed or transported out of the SJVAB.

Ozone levels are low during winter periods when there is much less sunlight to drive the photochemical reaction (SJVAPCD, 2015).

Precipitation, Humidity, and Fog

Precipitation and fog may reduce or limit some pollutant concentrations. Ozone needs sunlight for its formation, and clouds and fog can block the required solar radiation. Wet fogs can cleanse the air during winter as moisture collects on particles and deposits them on the ground. Atmospheric moisture can also increase pollution levels. In fogs with less water content, the moisture acts to form secondary ammonium nitrate particulate matter. The winds and unstable air conditions experienced during the passage of winter storms result in periods of low pollutant concentrations and excellent visibility. Between winter storms, high pressure and light winds allow cold moist air to pool on the SJVAB floor. This creates strong low-level temperature inversions and very stable air conditions, which can lead to tule fog. Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of particulate matter (PM), including PM that have a diameter of less than 2.5 micrometers ($PM_{2.5}$) and 10 micrometers PM_{10} (SJVAPCD, 2015).

Inversions

The vertical dispersion of air pollutants in the San Joaquin Valley can be limited by persistent temperature inversions. Air temperature in the lowest layer of the atmosphere typically decreases

with altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. The height of the base of the inversion is known as the "mixing height." This is the level to which pollutants can mix vertically. Mixing of air is minimized above and below the inversion base. The inversion base represents an abrupt density change where little air movement occurs.

Inversion layers are significant in determining pollutant concentrations. Concentration levels can be related to the amount of mixing space below the inversion. Temperature inversions that occur on the summer days are usually 2,000 to 2,500 feet above the valley floor. In winter months, overnight inversions occur 500 to 1,500 feet above the valley floor (SJVAPCD, 2015).

CRITERIA POLLUTANTS

All criteria pollutants can have human health and environmental effects at certain concentrations. The United States Environmental Protection Agency (U.S. EPA) uses six "criteria pollutants" as indicators of air quality and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards (NAAQS). In addition, California establishes ambient air quality standards, called California Ambient Air Quality Standards (CAAQS). California law does not require that the CAAQS be met by a specified date as is the case with NAAQS.

The ambient air quality standards for the six criteria pollutants (as shown in Table 3.3-1) are set to public health and the environment within an adequate margin of safety (as provided under Section 109 of the Federal Clean Air Act). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants, and form the scientific basis for new and revised ambient air quality standards. Principal characteristics and possible health and environmental effects from exposure to the six primary criteria pollutants generated by the Project are discussed below.

Ozone (O_3) is a photochemical oxidant and the major component of smog. While O_3 in the upper atmosphere is beneficial to life by shielding the earth from harmful ultraviolet radiation from the sun, high concentrations of O_3 at ground level are a major health and environmental concern. O_3 is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of volatile organic compounds (ROG) and oxides of nitrogen (NO_x) in the presence of sunlight. These reactions are stimulated by sunlight and temperature so that peak O_3 levels occur typically during the warmer times of the year. Both ROGs and NO_x are emitted by transportation and industrial sources. ROGs are emitted from sources as diverse as autos, chemical manufacturing, dry cleaners, paint shops and other sources using solvents. Relatedly, reactive organic compounds (ROG) are defined as the subset of ROGs that are reactive enough to contribute substantially to atmospheric photochemistry.

The reactivity of O_3 causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O_3 not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O_3 for several hours at relatively low concentrations has been found to

significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths (U.S. EPA, 2022a). The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggest that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion (U.S. EPA, 2022b). The average background level of ozone in the California and Nevada is approximately 48.3 parts per billion, which represents approximately 77 percent of the total ozone in the western region of the U.S. (NASA, 2015).

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. O_3 can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

Carbon monoxide (CO) is a colorless, odorless and poisonous gas produced by incomplete burning of carbon in fuels. Carbon monoxide is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects to ambient CO (CARB, 2023c).

Very high levels of CO are not likely to occur outdoors. However, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability for getting oxygenated blood to their hearts in situations where the heart needs more oxygen than usual. They are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (USEPA, 2022d). Such acute effects may occur under current ambient conditions for some sensitive individuals, while increases in ambient CO levels increases the risk of such incidences.

Nitrogen oxides (NO_x) is a brownish, highly reactive gas that is present in all urban atmospheres. The main effect of increased NO_2 is the increased likelihood of respiratory problems. Under ambient

conditions, NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Nitrogen oxides are an important precursor both to ozone (O_3) and acid rain and may affect both terrestrial and aquatic ecosystems. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, as well as children and the elderly are generally at greater risk for the health effects of NO_2.

The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO_x). NO_x plays a major role, together with ROGs, in the atmospheric reactions that produce O_3. NO_x forms when fuel is burned at high temperatures. The two major emission sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

Sulfur dioxide (SO_2) is one of the multiple gaseous oxidized sulfur species and is formed during the combustion of fuels containing sulfur, primarily coal and oil. The largest anthropogenic source of SO_2 emissions in the U.S. is fossil fuel combustion at electric utilities and other industrial facilities. SO_2 is also emitted from certain manufacturing processes and mobile sources, including locomotives, large ships, and construction equipment.

SO_2 affects breathing and may aggravate existing respiratory and cardiovascular disease in high doses. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, children and the elderly. SO_2 is also a primary contributor to acid deposition, or acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings and statues. In addition, sulfur compounds in the air contribute to visibility impairment in large parts of the country. This is especially noticeable in national parks. Ambient SO_2 results largely from stationary sources such as coal and oil combustion, steel mills, refineries, pulp and paper mills and from nonferrous smelters.

Short-term exposure to ambient SO_2 has been associated with various adverse health effects. Multiple human clinical studies, epidemiological studies, and toxicological studies support a causal relationship between short-term exposure to ambient SO_2 and respiratory morbidity. The observed health effects include decreased lung function, respiratory symptoms, and increased emergency department visits and hospitalizations for all respiratory causes. These studies further suggest that people with asthma are potentially susceptible or vulnerable to these health effects. In addition, SO_2 reacts with other air pollutants to form sulfate particles, which are constituents of fine particulate matter ($PM_{2.5}$). Inhalation exposure to $PM_{2.5}$ has been associated with various cardiovascular and respiratory health effects (U.S. EPA, 2017). Increased ambient SO_2 levels would lead to increased risk of such effects.

SO_2 emissions that lead to high concentrations of SO_2 in the air generally also lead to the formation of other sulfur oxides (SOx). SOx can react with other compounds in the atmosphere to form small particles. These particles contribute to particulate matter (PM) pollution. Small particles may penetrate deeply into the lungs and in sufficient quantity can contribute to health problems.

Particulate matter (PM) includes dust, dirt, soot, smoke and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires and natural windblown dust. Particles formed in the atmosphere by condensation or the transformation of emitted gases such as SO_2 and ROGs are also considered particulate matter. PM is generally categorized based on the diameter of the particulate matter: PM_{10} is particulate matter 10 micrometers or less in diameter (known as respirable particulate matte*r*), and $PM_{2.5}$ is particulate matter 2.5 micrometers or less in diameter (known as fine particulate matter).

Based on studies of human populations exposed to high concentrations of particles (sometimes in the presence of SO_2) and laboratory studies of animals and humans, there are major effects of concern for human health. These include effects on breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against foreign materials, damage to lung tissue, carcinogenesis and premature death. Small particulate pollution causes health impacts even at very low concentrations – indeed no threshold has been identified below which no damage to health is observed.

Respirable particulate matter (PM_{10}) consists of small particles, less than 10 microns in diameter, of dust, smoke, or droplets of liquid which penetrate the human respiratory system and cause irritation by themselves, or in combination with other gases. Particulate matter is caused primarily by dust from grading and excavation activities, from agricultural activities (as created by soil preparation activities, fertilizer and pesticide spraying, weed burning and animal husbandry), and from motor vehicles, particularly diesel-powered vehicles. PM_{10} causes a greater health risk than larger particles, since these fine particles can more easily penetrate the defenses of the human respiratory system.

$PM_{2.5}$ consists of fine particles that are less than 2.5 microns in size. Similar to PM_{10}, these particles are primarily the result of combustion in motor vehicles, particularly diesel engines, as well as from industrial sources and residential/agricultural activities such as burning. It is also formed through the reaction of other pollutants. As with PM_{10}, these particulates can increase the chance of respiratory disease, and cause lung damage and cancer. In 1997, the U.S. EPA created new Federal air quality standards for $PM_{2.5}$.

Although neither the U.S. EPA nor the California air districts have provided any thresholds for ultrafine particles (UFPs) (defined as fine particles of less than 0.1 microns in size, or $PM_{0.1}$), it should be noted that such particles may have the potential for even greater health effects than PM_{10} or $PM_{2.5}$, due to their even smaller sizes. UFPs are primarily generated by motor vehicle emissions (especially from diesel engines), braking, and tire wear. Specifically, UFPs are comprised mostly of metals that are known constituents of brake pads and drums, as well as additives in motor oil. Generally, all engines can create UFPs, but especially diesel engines, and any vehicle's braking system; traffic, particularly start-and-stop, generates UFPs.[2] Recent research suggests that UFPs pose considerable health risks, similar to but tending to be more severe than PM_{10} and $PM_{2.5}$, such as increased risk of cardiovascular disease and ischemic heart disease death rates, and loss of lung

[2] Aerosol Science and Technology. 2011. Thomas A. Cahill, David E. Barnes, Nicholas J. Spada, Jonathan A. Lawton, and Thomas M. Cahill. Very Fine and Ultrafine Metals and Ischemic Heart Disease in the California Central Valley 1: 2003-2007. July 13, 2011.

function.[3] Furthermore, unlike diesel exhaust or other larger TAC emissions, UFPs are more persistent and do not dissipate easily over distances.[4]

The major subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary or cardiovascular disease or influenza, asthmatics, the elderly and children. Particulate matter also impacts soils and damages materials and is a major cause of visibility impairment.

The major subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary or cardiovascular disease or influenza, asthmatics, the elderly and children. Particulate matter also impacts soils and damages materials and is a major cause of visibility impairment.

Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lunch function, and increased respiratory symptoms. Studies show that every 1 microgram per cubic meter reduction in $PM_{2.5}$ results in a one percent reduction in mortality rate for individuals over 30 years old (Bay Area Air Quality Management District, 2017). Long-term exposures, such as those experienced by people living for many years in areas with high PM levels, have been associated with problems such as reduced lung function and the development of chronic bronchitis – and even premature death. Additionally, depending on its composition, both PM_{10} and $PM_{2.5}$ can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (U.S. EPA, 2022c).

Lead (Pb) exposure can occur through multiple pathways, including inhalation of air and ingestion of Pb in food, water, soil or dust. Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system. Lead exposure also affects the oxygen carrying capacity of the blood. Excessive Pb exposure can cause seizures, mental retardation and/or behavioral disorders. Low doses of Pb can lead to central nervous system damage. Recent studies have also shown that Pb may be a factor in high blood pressure and subsequent heart disease.

Lead is persistent in the environment and can be added to soils and sediments through deposition from sources of lead air pollution. Other sources of lead to ecosystems include direct discharge of waste streams to water bodies and mining. Elevated lead in the environment can result in

[3] Atmospheric Environment. 2016. Thomas A. Cahill, David E. Barnes, Leann Wuest, David Gribble, David Buscho, Roger S. Miller, Camille De la Croix. Artificial Ultra-fine Aerosol Tracers for Highway Transect Studies. April 7, 2016;
Aerosol Science and Technology. 2011. Thomas A. Cahil, David E. Barnes, Earl Withycombe, & Mitchell Watnik, and DELTA Group. Very Fine and Ultrafine Metals and Ischemic Heart Disease in the California Central Valley 1: 1974-1991. July 13, 2011.

[4] Atmospheric Environment. 2016. Transition Metals in Coarse, Fine, Very Fine and Ultra-fine Particles from an Interstate Highway Transect Near Detroit. September 12, 2016.

decreased growth and reproductive rates in plants and animals, and neurological effects in vertebrates.

Lead exposure is typically associated with industrial sources; major sources of lead in the air are ore and metals processing and piston-engine aircraft operating on leaded aviation fuel. Other sources are waste incinerators, utilities, and lead-acid battery manufacturers. The highest air concentrations of lead are usually found near lead smelters. As a result of the U.S. EPA's regulatory efforts, including the removal of lead from motor vehicle gasoline, levels of lead in the air decreased by 98 percent between 1980 and 2014 (U.S. EPA, 2022e). Based on this reduction of lead in the air over this period, and since most new developments to not generate an increase in lead exposure, the health impacts of ambient lead levels are not typically monitored by the California Air Resources Board (CARB).

AMBIENT AIR QUALITY STANDARDS

Both the U.S. EPA and the CARB have established ambient air quality standards for common pollutants. These ambient air quality standards represent safe levels of contaminants that avoid specific adverse health effects associated with each pollutant.

The federal and State ambient air quality standards are summarized in Table 3.3-1 for important pollutants. The federal and State ambient standards were developed independently, although both processes were aimed at avoiding health-related effects. As a result, the federal and State standards differ in some cases. In general, the California standards are more stringent. This is particularly true for ozone, $PM_{2.5}$, and PM_{10}. The U.S. EPA signed a final rule for the federal ozone eight-hour standard of 0.070 ppm on October 1, 2015, which was effective as of December 28, 2015 (equivalent to the California state ambient air quality eight-hour standard for ozone).

TABLE 3.3-1: FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

POLLUTANT	*AVERAGING TIME*	*FEDERAL PRIMARY STANDARD*	*STATE STANDARD*
Ozone	1-Hour 8-Hour	-- 0.070 ppm	0.09 ppm 0.070 ppm
Carbon Monoxide	8-Hour 1-Hour	9.0 ppm 35.0 ppm	9.0 ppm 20.0 ppm
Nitrogen Dioxide	Annual 1-Hour	0.053 ppm 0.100 ppm	0.03 ppm 0.18 ppm
Sulfur Dioxide	Annual 24-Hour 1-Hour	0.03 ppm 0.14 ppm 0.075 ppm	-- 0.04 ppm 0.25 ppm
PM_{10}	Annual 24-Hour	-- 150 ug/m^3	20 ug/m^3 50 ug/m^3
$PM_{2.5}$	Annual 24-Hour	12 ug/m^3 35 ug/m^3	12 ug/m^3 --
Lead	30-Day Avg. 3-Month Avg.	-- 0.15 ug/m^3	1.5 ug/m^3 --

NOTES: PPM = PARTS PER MILLION, UG/M3 = MICROGRAMS PER CUBIC METER

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2023A.

In 1997, new national standards for fine particulate matter diameter 2.5 microns or less ($PM_{2.5}$) were adopted for 24-hour and annual averaging periods. The existing PM_{10} standards were retained, but the method and form for determining compliance with the standards were revised.

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

Existing air quality concerns within San Joaquin County and the entire air basin are related to increases of regional criteria air pollutants (e.g., ozone and particulate matter), exposure to toxic air contaminants, odors, and increases in greenhouse gas emissions contributing to climate change. The primary source of ozone (smog) pollution is motor vehicles, which account for 70 percent of the ozone in the region. Particulate matter is caused by dust, primarily dust generated from construction and grading activities, and smoke emitted from fireplaces, wood-burning stoves, and agricultural burning.

Attainment Status

In accordance with the California Clean Air Act (CCAA), the CARB is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria.

Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data do not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. EPA designates areas for ozone, carbon monoxide, and nitrogen dioxide as "does not meet the primary standards," "cannot be classified," or "better than national standards." For sulfur dioxide, areas are designated as "does not meet the primary standards," "does not meet the secondary standards," "cannot be classified," or "better than national standards." However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used.

San Joaquin County has a State designation Attainment or Unclassified for all criteria pollutants except for ozone, PM_{10} and $PM_{2.5}$. San Joaquin County has a national designation of either Unclassified or Attainment for all criteria pollutants except for Ozone and $PM_{2.5}$. Table 3.3-2 presents the state and nation attainment status for San Joaquin County.

TABLE 3.3-2: STATE AND NATIONAL ATTAINMENT STATUS IN SAN JOAQUIN COUNTY

CRITERIA POLLUTANTS	*STATE DESIGNATIONS*	*NATIONAL DESIGNATIONS*
Ozone (O_3)	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Unclassified/Attainment
Nitrogen Dioxide (NO_2)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO_2)	Attainment	Unclassified/Attainment
Sulfates	Attainment	
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	
Visibility Reducing Particles	Unclassified	

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2022.

San Joaquin County Air Quality Monitoring

The San Joaquin Valley Air Pollution District (SJVAPCD) and the CARB maintain air quality monitoring sites throughout San Joaquin County that collect data for ozone and $PM_{2.5}$. In addition, air quality monitoring sites for PM_{10} are located throughout the San Joaquin Valley (though not in San Joaquin County). The closest air quality monitoring station to the Project site is the Tracy-Airport location. It is important to note that while the State retains the one-hour ozone standard, the federal ozone 1-hour standard was revoked by the U.S. EPA and is no longer applicable for federal standards. Best available data obtained from the monitoring sites between 2019 and 2021 (latest year of data available) is shown in Table 3.3-3, Table 3.3-4, and Table 3.3-5.

TABLE 3.3-3 AMBIENT AIR QUALITY MONITORING DATA SUMMARY (TRACY-AIRPORT)* - OZONE

YEAR	*DAYS > STANDARD*				*1-HOUR OBSERVATIONS*			*8-HOUR AVERAGES*				*YEAR COVERAGE*	
	STATE		*NATIONAL*			*STATE*	*NAT'L*	*STATE*		*NATIONAL*			
	1-HR	*8-HR*	*1-HR*	*8-HR*	*MAX.*	*D.V.[1]*	*D.V.[2]*	*MAX.*	*D.V.[1]*	*MAX.*	*D.V.[2]*	*MIN*	*MAX*
2021	0	3	0	3	0.089	0.09	0.087	0.078	0.077	0.077	0.068	96	98
2020	0	3	0	3	0.086	0.09	0.092	0.078	0.082	0.078	0.070	95	96
2019	1	3	0	3	0.095	0.09	0.092	0.080	0.082	0.079	0.073	97	99

*NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. THE NATIONAL 1-HOUR OZONE STANDARD WAS REVOKED IN JUNE 2005 AND IS NO LONGER IN EFFECT. STATISTICS RELATED TO THE REVOKED STANDARD ARE SHOWN IN ITALICS. D.V. [1]= STATE DESIGNATION VALUE. D.V. [2]= NATIONAL DESIGN VALUE. *TRACY-AIRPORT REPRESENTS THE CLOSEST MONITORING STATION TO THE PROJECT SITE.*

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

TABLE 3.3-4: AMBIENT AIR QUALITY MONITORING DATA SUMMARY (SAN JOAQUIN VALLEY)* – PM_{10}

YEAR	*EST. DAYS > STD.*		*ANNUAL AVERAGE*		*HIGH 24-HR AVERAGE*		*YEAR COVERAGE*
	NAT'L	*STATE*	*NAT'L*	*STATE*	*NAT'L*	*STATE*	
2021	16.3	151.7	54.9	52.8	437.5	439.3	0 - 97
2020	38.7	157.0	64.5	60.5	517.2	359.0	0 - 100
2019	16.2	129.7	55.6	55.6	652.2	664.2	0 – 100

NOTES: THE NATIONAL ANNUAL AVERAGE PM_{10} STANDARD WAS REVOKED IN DECEMBER 2006 AND IS NO LONGER IN EFFECT. AN EXCEEDANCE IS NOT NECESSARILY A VIOLATION. STATISTICS MAY INCLUDE DATA THAT ARE RELATED TO AN EXCEPTIONAL EVENT. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT

*SAMPLERS. NATIONAL STATISTICS ARE BASED ON STANDARD CONDITIONS. STATE CRITERIA FOR ENSURING THAT DATA ARE SUFFICIENTLY COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE STRINGENT THAN THE NATIONAL CRITERIA. *THIS DATA REPRESENTS THE HIGHEST VALUES IDENTIFIED WITHIN SAN JOAQUIN VALLEY AS A WHOLE. DATA FOR THE NEAREST MONITORING SITE (TRACY-AIRPORT), AS WELL AS FOR SAN JOAQUIN COUNTY, HAD INSUFFICIENT DATA.*

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

TABLE 3.3-5 AMBIENT AIR QUALITY MONITORING DATA SUMMARY (SAN JOAQUIN COUNTY)* - $PM_{2.5}$

YEAR	EST. DAYS > NAT'L '06 STD.	ANNUAL AVERAGE		NAT'L ANN. STD. D.V.[1]	STATE ANNUAL D.V.[2]	NAT'L '06 STD. 98TH PERCENTILE	NAT'L '06 24-HR STD. D.V.[1]	HIGH 24-HOUR AVERAGE		YEAR COVERAGE	
		NAT'L	STATE					NAT'L	STATE	MIN	MAX
2021	1.3	11.7	ND	ND	15	39.9	52	58.7	58.7	14	100
2020	24.0	14.8	14.8	13.7	17	91.6	72	140.0	140.0	98	99
2019	6.4	9.3	6.2	13.0	17	32.9	56	50.1	50.1	77	95

*NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT SAMPLERS. STATE CRITERIA FOR ENSURING THAT DATA ARE SUFFICIENTLY COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE STRINGENT THAN THE NATIONAL CRITERIA. D.V. [1] = STATE DESIGNATION VALUE. D.V. [2]= NATIONAL DESIGN VALUE. *THIS DATA REPRESENTS THE HIGHEST VALUES IDENTIFIED WITHIN SAN JOAQUIN COUNTY AS A WHOLE. DATA FOR THE NEAREST MONITORING SITE (TRACY-AIRPORT) HAS INSUFFICIENT DATA. ND = NO DATA*

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

ODORS

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another.

It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

SENSITIVE RECEPTORS

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. A sensitive receptor is a location where human populations, especially children, seniors, and sick persons, are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include residences, hospitals, and schools. The closest sensitive receptors to the Project are located as follows:

- A residence is located approximately 0.70 miles (3,696 feet) to the east of the Project site;
- A cluster of residences is located approximately 0.50 miles (2,635 feet) to the south of the Project site; and
- Additional scattered residences are located approximately 0.64 miles (3,400) feet to the southwest of the Project site.

3.3.2 REGULATORY SETTING

FEDERAL

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: NAAQS for criteria air pollutants, hazardous air pollutant standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The U.S. EPA is responsible for administering the FCAA. The FCAA requires the U.S. EPA to set NAAQS for several air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health (with an adequate margin of safety, including for sensitive populations such as children, the elderly, and individuals suffering from respiratory diseases), and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

NAAQS standards define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Existing violations of the ozone and $PM_{2.5}$ ambient air quality standards indicate that certain individuals

exposed to these pollutants may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

Although there is some variability among the health effects of the NAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing.

Federal Hazards Air Pollutants Program

The 1977 CAA Amendments required the USEPA to identify National Emissions Standards for Hazardous Air Pollutants (NESHAPs) to protect the public health and welfare. Hazardous air pollutants include certain VOCs, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 CAA Amendments, which expanded the control program for hazardous air pollutants, 189 substances and chemical families were identified as hazardous air pollutants.

Federal Heavy-duty Engines and Vehicles Fuel Efficiency Standards

In 2010, President Obama issued a memorandum directing federal agencies to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and National Highway Traffic Safety Administration (NHTSA) proposed stringent, coordinated federal GHG and fuel economy standards for model year 2017–2025 light-duty vehicles. The proposed standards are projected to achieve 163 grams/mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles.

In August 2016, the USEPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans and all types of sizes of buses and work trucks. The final standards are expected to lower carbon dioxide emissions by approximately 1.1 billion metric tons (MT) and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program.[5]

[5] USEPA and NHTSA. 2016. Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles – Phase 2. Available at: https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf. Accessed: February 2022.

In August 2017, the USEPA asked for additional information and data relevant to assessing whether the GHG emissions standards for model years 2022-2025 remain appropriate. In early 2018, the USEPA Administrator announced that the midterm evaluation for the GHG emissions standards for cars and light-duty trucks for model years 2022-2025 was completed and stated his determination that the current standards should be revised in light of recent data. Subsequently, in April 2018, the USEPA and NHTSA proposed to amend certain existing Corporate Average Fuel Economy (CAFE) standards for passenger cars and light trucks and establish new standards, covering model years 2022-2025. Compared to maintaining the post-2020 standards now in place, the pending proposal would increase U.S. fuel consumption.[6] California and other states have announced their intent to challenge federal actions that would delay or eliminate GHG reductions. In April 2020, NHTSA and EPA amended the CAFE and GHG emissions standards for passenger cars and light trucks and established new less stringent standards, covering model years 2021 through 2026.

On September 27, 2019, the USEPA and NHTSA published the SAFE Rule (Part One).[7] The SAFE Rule (Part One) went into effect in November 2019, and revoked California's authority to set its own GHGs standards and set zero emission vehicle mandates in California. The SAFE Rule (Part One) freezes new zero emission vehicles (ZEV) sales at model year 2020 levels for year 2021 and beyond, and will likely result in a lower number of future ZEVs and a corresponding greater number of future gasoline internal combustion engine vehicles. In response to the USEPA's adoption of the SAFE Rule (Part One), CARB has issued guidance regarding the adjustment of vehicle emissions factors to account for the rule's implications on criteria air pollutant and greenhouse gas emissions.[8,9] The SAFE Rule is subject to ongoing litigation and on February 8, 2021 the D.C. Circuit Court of Appeals granted the Biden Administration's motion to stay litigation over Part 1 of the SAFE Rule. On April 22 and April 28, 2021, respectively, NHTSA and USEPA formally announced their intent to reconsider the Safe Rule (Part One).[10] In August 2021, USEPA proposed to revise existing national greenhouse gas (GHG) emissions standards for passenger cars and light trucks for Model Years 2023- 2026 to make the standards more stringent. On August 5, 2021, USEPA announced plans to reduce

[6] NHTSA. 2018. Federal Register, Vol. 83, No. 72, Rules & Regulations, Mid-Term Evaluation of Greenhouse Gas Emissions Standards for Model Year 2022-2025 Light Duty Vehicles. April 13. Available at: https://www.federalregister.gov/documents/2018/04/13/2018-07364/mid-term-evaluation-of-greenhouse-gas-emissions-standards-for-model-year-2022-2025-light-duty. Accessed: February 2022.

[7] USEPA and NHTSA. 2019. Federal Register, Vol. 84, No. 188, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. September 27. Available at: https://www.govinfo.gov/content/pkg/FR-2019-09-27/pdf/2019-20672.pdf. Accessed: February 2022.

[8] CARB. 2019. EMFAC Off-Model Adjustment Factors to Account for the SAFE Vehicle Rule Part One. November 20. Available at: https://ww3.arb.ca.gov/msei/emfac_off_model_adjustment_factors_final_draft.pdf. Accessed: February 2022.

[9] CARB. 2020. EMFAC Off-Model Adjustment Factors for Carbon Dioxide Emissions to Account for the SAFE Vehicles Rule Part One and the Final SAFE Rule. June 26. Available at: https://ww3.arb.ca.gov/msei/emfac_off_model_co2_adjustment_factors_06262020-final.pdf. Accessed: February 2022.

[10] USEPA. 2021. Federal Register, Vol. 86, No. 80, California State Motor Vehicle Pollution Control Standards; Advanced Clean Car Program; Reconsideration of a previous Withdrawal of a Waiver of Preemption; Opportunity for Public Hearing and Public Comment. April 28. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/notice-reconsideration-previous-withdrawal-waiver. Accessed: February 2022.

greenhouse gas (GHG) emissions and other harmful air pollutants from heavy-duty trucks through a series of rulemakings over the next three years. The first rulemaking, to be finalized in 2022, will apply to heavy-duty vehicles starting in model year 2027, and will set new standards for criteria pollutants for the entire sector as well as targeted updates to the current GHG emissions standards.[11]

STATE

California Clean Air Act

The California Legislature enacted the California Clean Air Act (CCAA) in 1988 to address air quality issues of concern not adequately addressed by the federal CAA at the time. California's air quality problems were and continue to be some of the most severe in the nation and required additional actions beyond the federal mandates. The CARB administers California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the CCAA. The 10 State air pollutants are the six pollutants subject to federal standards listed above as well as visibility reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The U.S. EPA authorized California to adopt its own regulations for motor vehicles and other sources that are more stringent than similar federal regulations implementing the CAA. Generally, the planning requirements of the federal CAA are less stringent than the CCAA; therefore, consistency with the CCAA will also demonstrate consistency with the federal CAA.

CARB Mobile-Source Regulation

The State of California is responsible for controlling emissions from the operation of motor vehicles in the State. Rather than mandating the use of specific technology or the reliance on a specific fuel, the CARB motor vehicle standards specify the allowable grams of pollution per mile driven. In other words, the regulations focus on the reductions needed rather than on the manner in which they are achieved. Towards this end, the CARB has adopted regulations that require auto manufacturers to phase in less-polluting vehicles.

California Air Quality Standards

Although NAAQS are determined by the U.S. EPA, states have the ability to set standards that are more stringent than the federal standards. As such, California established more stringent ambient air quality standards. Federal and state ambient air quality standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulates and lead. In addition, California has created standards for pollutants that are not covered by federal standards. Although there is some variability among the health effects of the CAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations and emergency department visits for exacerbated chronic disease, and increased symptoms such as

[11] USEPA. 2021. Clean Trucks Plan. https://www.epa.gov/regulations-emissions-vehicles-and-engines/clean-trucks-plan. Accessed: February 2022.

coughing and wheezing. The existing state and federal primary standards for major pollutants are shown in Table 3.3-1.

Tanner Air Toxics Act (TACs)

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and has adopted U.S. EPA's list of Hazardous Air Pollutants (HAPs) as TACs. Most recently, diesel PM was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technologies (BACT) to minimize emissions.

Toxic Air Contaminants Health Effects

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. The California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the 10 TACs that pose the most substantial health risk in California based on available data. The 10 TACs are acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

DPM differs from other TACs in that it is not a single substance, but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for DPM because no routine measurement method currently exists. The CARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of DPM.

Transportation Control Measures

The State Implementation Plan (SIP) describes the infrastructure (authorities, resources, and programs) California has in place to implement, maintain, and enforce the NAAQS. One particular aspect of the development process is the consideration of potential control measures as a part of making progress towards clean air goals. While most SIP control measures are aimed at reducing emissions from stationary sources, some are typically also created to address mobile or transportation sources. These are known as transportation control measures (TCMs). TCM strategies are designed to reduce vehicle miles traveled and trips, or vehicle idling and associated air pollution. These goals are achieved by developing attractive and convenient alternatives to single-occupant vehicle use. Examples of TCMs include ridesharing programs, transportation infrastructure improvements such as adding bicycle and carpool lanes, and expansion of public transit.

Omnibus Low-NOx Rule

CARB approved the Omnibus Low-NOx Rule on August 28, 2020, which will require engine NOx emissions to be cut to approximately 75% below current standards beginning in 2024, and 90% below current standards in 2027. The rule also places nine additional regulatory requirements on new heavy-duty trucks and engines. Those additional requirements include a 50% reduction in particulate matter emissions, stringent new low-load and idle standards, a new in-use testing protocol, extended deterioration requirements, a new California-only credit program, and extended mandatory warranty requirements. The regulatory requirements in the Omnibus Low-NOx Rule will first become effective in 2024, at the same time as the Advanced Clean Trucks regulations that CARB approved that require manufacturers to convert increasing percentages of their heavy-duty trucks sold in California to zero-emission vehicles.

Low Emission Vehicle Program

The CARB first adopted Low Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 State Implementation Plan (SIP). In 2012, the CARB adopted the LEV III amendments to California's LEV regulations. These amendments, also known as the Advanced Clean Car Program, include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and greenhouse gas (GHG) emissions for new passenger vehicles.

On September 23, 2020, Governor Gavin Newsom issued Executive Order N-79-20 establishing a goal that 100 percent of new passenger cars and trucks sold in California shall be zero-emission by 2035. The Executive Order also sets a goal that, where feasible, all operations include zero-emission medium- and heavy-duty trucks by 2045, and drayage trucks by 2035. Off-road vehicles have a goal to transition to 100 percent zero-emission vehicles by 2035, where feasible.

On-Road Heavy-Duty Vehicle Program

The CARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, and test procedures. The CARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, and the School Bus Program and others.

California Air Resources Board Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the CARB adopted a regulation to reduce DPM and NOx emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The CARB is enforcing that part of the rule with fines up to $10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NOx emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements, making the first compliance deadline January 1, 2014, for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

The latest amendments became effective on December 31, 2014. The amended regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter (PM) filter requirements beginning January 1, 2012. Lighter and older heavier trucks were required to be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.

The regulation applies to nearly all privately and federally owned diesel-fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. The regulation provides a variety of flexibility options tailored to fleets operating low use vehicles, fleets operating in selected vocations like agricultural and construction, and small fleets of three or fewer trucks.[12]

Diesel Risk Reduction Plan

The CARB's Diesel Risk Reduction Plan has led to the adoption of new State regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by about 90 percent overall from year 2000 levels. The projected emission benefits

[12] California Air Resources Board (CARB). 2021. Truck and Bus Regulation. Website: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed February 16, 2021.

associated with the full implementation of this plan, including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010, and 85 percent by 2020.[13]

LOCAL

City of Tracy General Plan

The City of Tracy General Plan includes several policies that are relevant to air quality. General Plan policies applicable to the Project are identified below:

POLICIES: AIR QUALITY ELEMENT

- AQ-1.1-P1. The City shall promote land use patterns that reduce the number and length of motor vehicle trips.
- AQ-1.1-P2. To the extent feasible, the City shall maintain a balance and match between jobs and housing.
- AQ-1.1-P4. Employment areas should include a mix of support services to minimize the number of trips.
- AQ-1.2-P1. The City shall assess air quality impacts using the latest version of the CEQA Guidelines and guidelines prepared by the San Joaquin Valley Air Pollution Control District.
- AQ-1.2-P2. The City shall assess through the CEQA process any air quality impacts of development projects that may be insignificant by themselves, but cumulatively significant.
- AQ-1.2-P3. Developers shall implement best management practices to reduce air pollutant emissions associated with the construction and operation of development projects.
- AQ-1.2-P4. New development projects should incorporate energy efficient design features for HVAC, lighting systems and insulation that exceed Title 24.
- AQ-1.2-P5. Use of solar water and pool heaters is encouraged.
- AQ-1.2-P6. Installation of solar voltaic panels on new homes and businesses shall be encouraged.
- AQ-1.2-P7. Trees should be planted on the south- and west-facing sides of new buildings or buildings undergoing substantial renovation in order to reduce energy usage.
- AQ-1.2-P9. New developments shall follow the current requirements of the SJVAPCD with respect to wood burning fireplaces and heaters.
- AQ-1.2-P10. Stationary air pollutant emission sources (e.g. factories) shall be located an appropriate distance away and down-wind from residential areas and other sensitive receptors.
- AQ-1.2-P12. New sources of toxic air pollutants shall prepare a Health Risk Assessment as required under the Air Toxics "Hot Spots" Act and, based on the results of the Assessment, establish appropriate land use buffer zones around those areas posing substantial health risks.

[13] California Air Resources Board (CARB). 2021. Diesel Risk Reduction Plan. Website: https://ww2.arb.ca.gov/our-work/programs/diesel-risk-reduction-plan. Accessed February 16, 2021.

- AQ-1.2-P13. Dust control measures consistent with San Joaquin Valley Air Pollution Control District rules shall be required as a condition of approval for subdivision maps, site plans, and all grading permits.
- AQ-1.2-P14. Developments that significantly impact air quality shall only be approved if all feasible mitigation measures to avoid, minimize or offset the impact are implemented.
- AQ-1.2-P15. Encourage businesses to electrify loading docks or implement idling-reduction systems so that trucks transporting refrigerated goods can continue to power cab cooling elements during loading, layovers, and rest periods.
- AQ-1.2-P16. Encourage the use of Best Management Practices in agriculture and animal operations.
- AQ-1.3-P1. The City shall continue to work with the San Joaquin Council of Governments on regional transportation solutions.
- AQ-1.3-P3. The City shall encourage employers to establish Transportation Demand Management programs.
- AQ-1.3-P5. The City shall require direct pedestrian and bicycle linkages from residential areas to parks, schools, retail areas, high-frequency transit facilities and major employment areas.

San Joaquin Valley Air Pollution Control District

The primary role of SJVAPCD is to develop plans and implement control measures in the SJVAB to control air pollution. These controls primarily affect stationary sources such as industry and power plants. Rules and regulations have been developed by SJVAPCD to control air pollution from a wide range of air pollution sources. SJVAPCD also provides uniform procedures for assessing potential air quality impacts of proposed projects and for preparing the air quality section of environmental documents.

AIR QUALITY PLANNING

The U.S. EPA requires states that have areas that do not meet the National AAQS to prepare and submit air quality plans showing how the National AAQS will be met. If the states cannot show how the National AAQS will be met, then the states must show progress toward meeting the National AAQS. These plans are referred to as the SIP. In October 2018, the CARB adopted the 2018 Updates to the California State Implementation Plan.

In addition, the CARB requires regions that do not meet California AAQS for ozone to submit clean air plans (CAPs) that describe measures to attain the standard or show progress toward attainment. To ensure federal CAA compliance, SJVAPCD is currently developing plans for meeting new National AAQS for ozone and $PM_{2.5}$ and the California AAQS for PM_{10} in the SJVAB (for California CAA compliance). The following describes the air plans prepared by the SJVAPCD.

8-HOUR OZONE PLAN

The SJVAPCD's Governing Board adopted the 2007 Ozone Plan on April 30, 2007. This far-reaching plan, with innovative measures and a "dual path" strategy, assures expeditious attainment of the

federal 8-hour ozone standard as set by U.S. EPA in 1997. The CARB approved the plan on June 14, 2007. The U.S. EPA approved the 2007 Ozone Plan effective April 30, 2012. SJVAPCD adopted the 2016 Ozone Plan to address the federal 2008 8-hour ozone standard, which must be attained by end of 2031.[14,15] More recently, a new ozone attainment plan is under development. Specifically, the 2022 Ozone Plan for the Attainment of the 2015 Federal 8-hour Ozone Standard is anticipated to be submitted in August 2022 to the U.S. EPA.

PM_{10} PLAN

Based on PM_{10} measurements from 2003 to 2006, the U.S. EPA found that the SJVAB has reached federal PM_{10} standards. On September 21, 2007, the SJVAPCD's Governing Board adopted the 2007 PM_{10} Maintenance Plan and Request for Redesignation. This plan demonstrated that the valley would continue to meet the PM_{10} standard. U.S. EPA approved the document and on September 25, 2008, the SJVAB was redesignated to attainment/maintenance (SJVAPCD, 2015).

PM2.5 PLAN

The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards on November 15, 2018.[16] This plan addresses the U.S. EPA federal 1997 annual $PM_{2.5}$ standard of 15 µg/m³ and 24-hour $PM_{2.5}$ standard of 65 µg/m³; the 2006 24-hour $PM_{2.5}$ standard of 35 µg/m³; and the 2012 annual $PM_{2.5}$ standard of 12 µg/m³. This plan demonstrates attainment of the federal $PM_{2.5}$ standards as expeditiously as practicable (SJVAPCD, 2020).

All of the above-referenced plans include measures (i.e., federal, state, and local) that would be implemented through rule making or program funding to reduce air pollutant emissions in the SJVAB. Transportation control measures are part of these plans.

SJVAPCD RULES AND REGULATIONS

SJVAPCD Indirect Source Review

On December 15, 2005, SJVAPCD adopted the Indirect Source Review Rule (ISR or Rule 9510) to reduce ozone precursors (i.e., ROG and NOx) and PM_{10} emissions from new land use development projects. Specifically, Rule 9510 targets the indirect emissions from vehicles and construction equipment associated with these projects and applies to both construction and operational-related impacts. The rule applies to the proposed Project since it proposes more than 25,000 square feet of light industrial uses.

This rule requires the applicants of certain development projects which equal or exceed established applicability thresholds to apply to the SJVAPCD when applying for the development's last discretionary approval. Projects subject to the rule are required to quantify indirect emissions

[14] SJVAPCD. Ozone Plans. http://www.valleyair.org/ Air_Quality_Plans/Ozone_Plans.htm, accessed March 3, 2020.
[15] SJVAPCD. 2016 Plan for the 2008 8-Hour Ozone Standard, http://www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm, accessed March 3, 2020.
[16] SJVAPCD. Particulate Matter Plans. http://valleyair.org/Air_Quality_Plans/PM_Plans.htm, accessed March 9, 2020.

(mobile source emissions), area source emissions and construction exhaust emissions and to mitigate a portion of these emissions. The Indirect Source Rule was adopted December 2005 and last amended December 2017. Rule 9510 was adopted to reduce the impacts of growth in emissions from all new development in the San Joaquin Valley. Developers of projects subject to Rule 9510 must reduce emissions occurring during construction and operational phases through on-site measures or pay off-site mitigation fees. One hundred percent of all off-site mitigation fees are used by the SJVAPCD to fund emission reduction projects through its Incentive Programs, achieving emission reductions on behalf of the project. The emission reduction expected from the rule allow the SJVAPCD to achieve attainment of the federal air quality standards for ozone by 2031.

The rule requires all subject, nonexempt projects to mitigate both construction and operational period emissions by (1) applying feasible SJVAPCD-approved mitigation measures, or (2) paying any applicable fees to support programs that reduce emissions. Off-site emissions reduction fees (off-site fees) are required for projects that do not achieve the required emissions reductions through on-site emission reduction measures. Phased projects can defer payment of fees in accordance with an Off-site Emissions Reduction Fee Deferral Schedule (FDS) approved by the SJVAPCD.

To determine how an individual project would satisfy Rule 9510, each project would submit an air quality impact assessment (AIA) to the SJVAPCD as early as possible, but no later than prior to the project's final discretionary approval, to identify the project's baseline unmitigated emissions inventory for indirect sources: on-site exhaust emissions from construction activities and operational activities from mobile and area sources of emissions (excludes fugitive dust and permitted sources). Rule 9510 requires the following reductions, which are levels that the SJVAPCD has identified as necessary, based on its air quality management plans, to reach attainment for ozone and particulate matter:

Construction Equipment Emissions

The exhaust emissions for construction equipment greater than 50 horsepower (hp) used or associated with the development project shall be reduced by the following amounts from the statewide average as estimated by CARB:

- 20 percent of the total NOx emissions
- 45 percent of the total PM_{10} exhaust emissions

AIA mitigation strategies may include those that reduce construction emissions on-site by using less polluting construction equipment, which can be achieved by utilizing add-on controls, cleaner fuels, or newer, lower emitting equipment.

Operational Emissions

- NOx Emissions. Applicants shall reduce 33.3 percent of the project's operational baseline NOx emissions over a period of 10 years as quantified in the approved AIA.
- PM_{10} Emissions. Applicants shall reduce 50 percent of the project's operational baseline PM_{10} emissions over a period of 10 years as quantified in the approved AIA.

These requirements listed above can be met through any combination of on-site emissions reduction measures. In the event that a project cannot achieve the above standards through imposition of mitigation measures, then the project would be required to pay the applicable off-site fees. These fees are used to fund various incentive programs that cover the purchase of new equipment, engine retrofit, and education and outreach.

Fugitive PM_{10} Prohibitions

SJVAPCD controls fugitive PM_{10} through Regulation VIII, Fugitive PM_{10} Prohibitions. The purpose of this regulation is to reduce ambient concentrations of PM_{10} and $PM_{2.5}$ by requiring actions to prevent, reduce, or mitigate anthropogenic (human caused) fugitive dust emissions.

- Regulation VIII, Rule 8021 applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on-site, and travel on access roads to and from the site.
- Regulation VIII, Rule 8031 applies to the outdoor handling, storage, and transport of any bulk material.
- Regulation VIII, Rule 8041 applies to sites where carryout or trackout has occurred or may occur on paved roads or the paved shoulders of public roads.
- Regulation VIII, Rule 8051 applies to any open area having 0.5 acre or more within urban areas or 3.0 acres or more within rural areas, and contains at least 1,000 square feet of disturbed surface area.
- Regulation VIII, Rule 8061 applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.
- Regulation VIII, Rule 8071 applies to any unpaved vehicle/equipment traffic area.
- Regulation VIII, Rule 8081 applies to off-field agricultural sources.

Sources regulated are required to provide Dust Control Plans that meet the regulation requirements. Under Rule 8021, a Dust Control Plan is required for any residential project that will include 10 or more acres of disturbed surface area, a nonresidential project with 5 or more acres of disturbed surface area, or a project that relocates 2,500 cubic yards per day of bulk materials for at least three days. The Dust Control Plan is required to be submitted to SJVAPCD prior to the start of any construction activity. The Dust Control Plan must also describe fugitive dust control measures to be implemented before, during, and after any dust-generating activity.

Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations

If asphalt paving will be used, then paving operations of the proposed Project will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.

Nuisance Odors

SJVAPCD controls nuisance odors through implementation of Rule 4102, Nuisance. Pursuant to this rule, "a person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any

such person or the public or which cause or have a natural tendency to cause injury or damage to business or property."

Employer Based Trip Reduction Program

SJVAPCD has implemented Rule 9410, Employer Based Trip Reduction. The purpose of this rule is to reduce VMT from private vehicles used by employees to commute to and from their worksites to reduce emissions of NOx, ROG, and particulate matter (PM_{10} and $PM_{2.5}$). The rule applies to employers with at least 100 employees. Employers are required to implement an Employer Trip Reduction Implementation Plan (ETRIP) for each worksite with 100 or more eligible employees to meet applicable targets specified in the rule. Employers are required to facilitate the participation of the development of ETRIPs by providing information to their employees explaining the requirements and applicability of this rule. Employers are required to prepare and submit an ETRIP for each worksite to the District. The ETRIP must be updated annually. Under this rule, employers shall collect information on the modes of transportation used for each eligible employee's commutes both to and from work for every day of the commute verification period, as defined in using either the mandatory commute verification method or a representative survey method. Annual reporting includes the results of the commute verification for the previous calendar year along with the measures implemented as outlined in the ETRIP and, if necessary, any updates to the ETRIP.

Visible Emissions

SJVAPCD controls visible emissions through Rule 4101, Visible Emissions. The purpose of this regulation is to prohibit visible air contaminants in the atmosphere. This rule requires that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three (3) minutes in any one (1) hour which is:

- As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.
- Of such opacity as to obscure an observer's view to a degree equal to or greater than the smoke described in Section 5.1 of this rule.

Architectural Coatings

The purpose of SJVAPCD Rule 4601 is to limit VOC emissions from architectural coatings. This rule specifies architectural coatings storage, cleanup, and labeling requirements. This rule is applicable to any person who supplies, markets, sells, offers for sale, applies, or solicits the application of any architectural coating, or who manufactures, blends or repackages any architectural coating for use within the District.

3.3.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on the environment associated with air quality if it will:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; and/or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

APPROACH TO ANALYSIS

While the final determination of whether a project's potential effect is significant is within the purview of the Lead Agency pursuant to Section 15064(b) of the CEQA Guidelines, the SJVAPCD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the Lead Agency finds that the project would exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. The applicable SJVAPCD thresholds and methodologies are contained under each impact statement below, as the City, in its discretion, has determined to utilize these thresholds and methodologies, which are based on scientific and factual data.

This analysis was performed consistent with the guidance and methodologies provided by the SJVAPCD's GAMAQI.[17] Based on the SJVAPCD New Source Review (NSR) offset requirements for stationary sources, the SJVAPCD has established thresholds of significance for criteria pollutant emissions, shown in Table 3.3-6. These thresholds apply to the project because these air pollutants would be generated during project construction and operation and constitute criteria pollutants or precursor emissions for criteria pollutants, which are regulated by the federal and State Clean Air Acts.

The SJVAPCD has also established significance thresholds to assess the impacts of project-related construction and operational emissions on regional and local ambient air quality. Table 3.3-7 shows the daily mass emissions screening criteria for construction and operation as adopted by the SJVAPCD for CAP and TAC emissions. The analysis summarized in this report estimates project-related construction and operational mass emissions and compares the emissions to these significance thresholds.

[17] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impact. Website: https://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf Accessed June 8, 2022.

TABLE 3.3-6: SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT SIGNIFICANCE THRESHOLDS

POLLUTANT	*CONSTRUCTION THRESHOLDS (TPY)*	*OPERATIONAL THRESHOLDS (TPY)*
ROG	10	10
NOX	10	10
CO	100	100
SOX	27	27
PM_{10}	15	15
$PM_{2.5}$	15	15

SOURCES: SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT (SJVAPCD). 2015. GUIDANCE FOR ASSESSING AND MITIGATING AIR QUALITY IMPACT. WEBSITE: HTTPS://WWW.VALLEYAIR.ORG/TRANSPORTATION/CEQA%20RULES/GAMAQI%20JAN%202002%20REV.PDF ACCESSED JUNE 8, 2022.

TABLE 3.3-7: SJVAPCD DAILY MASS EMISSIONS SCREENING CRITERIA

POLLUTANT	*CONSTRUCTION THRESHOLDS (POUNDS PER DAY)*	*OPERATIONAL THRESHOLDS (POUNDS PER DAY)*
ROG	100	100
NOX	100	100
CO	100	100
SOX	100	100
PM_{10}	100	100
$PM_{2.5}$	100	100

SOURCES: SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT (SJVAPCD). 2015. GUIDANCE FOR ASSESSING AND MITIGATING AIR QUALITY IMPACT. WEBSITE: HTTPS://WWW.VALLEYAIR.ORG/TRANSPORTATION/CEQA%20RULES/GAMAQI%20JAN%202002%20REV.PDF ACCESSED JUNE 8, 2022.

The daily mass emissions screening criteria provided in Table 3.3-7 represent screening-level thresholds that can be used to evaluate whether project-related emissions would cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. In the event that emissions exceed those thresholds, modeling would be required to demonstrate that the project's total air quality impacts result in ground-level concentrations that are below the CAAQS and NAAQS, including appropriate background levels.

CRITERIA POLLUTANT EMISSIONS MODELING

California Emission Estimator Model (CalEEMod)™ (v.2022.1), developed for the California Air Pollution Officers Association (CAPCOA) in collaboration with California air districts, was used to estimate emissions for the proposed Project. CalEEMod is recommended by the SJVAPCD for purposes of modeling criteria pollutant air emissions within the San Joaquin Valley. Project construction was assumed to begin in 2025 and be completed in 2027. It should be noted that exact timing of the construction schedule would be based on market demand; assuming an earlier construction schedule than would occur represents a conservative estimate, since construction-based emissions rates would improve with time, due to increasing efficiency of equipment over time.

The assumptions for the modeling are: Unrefrigerated Warehouse – No Rail (207,000 square feet); General Office Building (10,900 square feet); Other Asphalt Surfaces (15.9 acres). Vehicle trips and

fleet mix estimated in the modeling are consistent with those as provided by Kimley Horn in its traffic analysis (see Appendix G for further detail). The construction phase includes demolition, site preparation, grading, building construction, paving, and architectural coating phases. See Appendix B for further detail.

STATE OF CALIFORNIA DEPARTMENT OF JUSTICE BEST PRACTICES WHEN STUDYING AIR QUALITY AND GREENHOUSE GAS EMISSIONS

The following analysis complies with all of the example best practices when studying air quality and greenhouse gas emissions, as cited by the California Department of Justice's Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act. Specifically, the proposed Project complies with each of the example best practices when studying air quality and greenhouse gas impacts listed within the California Department of Justice's comment letter on the Project NOP on December 20, 2023, as follows:

- Fully analyzing all reasonably foreseeable project impacts, including cumulative impacts;
- When analyzing cumulative impacts, thoroughly considering the project's incremental impact in combination with past, present, and reasonably foreseeable future projects, even if the project's individual impacts alone do not exceed the applicable significance thresholds;
- Preparing a quantitative air quality study in accordance with local air district guidelines;
- Preparing a quantitative health risk assessment in accordance with California Office of Environmental Health Hazard Assessment and local air district guidelines;
- Refraining from labeling compliance with CARB or air district regulations as a mitigation measure—compliance with applicable regulations is required regardless of CEQA;
- Disclosing air pollution from the entire expected length of truck trips. CEQA requires full public disclosure of a project's anticipated truck trips, which entails calculating truck trip length based on likely truck trip destinations, rather than the distance from the facility to the edge of the air basin, local jurisdiction, or other truncated endpoint. All air pollution associated with the project must be considered, regardless of where those impacts occur.
- Accounting for all reasonably foreseeable greenhouse gas emissions from the project, without discounting projected emissions based on participation in California's Cap-and-Trade Program.

IMPACTS AND MITIGATION MEASURES

Impact 3.3-1: Project operation would not conflict or obstruct implementation of the District's air quality plan. (Less than Significant)

The CEQA Guidelines indicate that a significant impact would occur if the proposed Project would conflict with or obstruct implementation of the applicable Air Quality Attainment Plan (AQAP). The CARB has developed a three-step approach to determine project conformity with the applicable Air Quality Attainment Plan (AQAP):

- *Determination that an AQAP is being implemented in the area where the project is being proposed.*

- *The proposed project must be consistent with the growth assumptions of the applicable AQAP.*
- *The project must contain in its design all reasonably available and feasible air quality control measures.*

The proposed Project is in conformance with the AQAP, based on these criteria, as follows:

- *Determination that an AQAP is being implemented in the area where the project is being proposed.*

The SJVAPCD has implemented the current, modified 2016 8-hour AQAP as approved by CARB and approved by USEPA for the 2008 8-hour O_3 standard.

- *The proposed project must be consistent with the growth assumptions of the applicable AQAP.*

The SJCOG RTP/SCS growth projections provide for future employment/population factors. The development of the SJVAPCD AQAP is based in part on the land use general plan projections of the various cities and counties that constitute the Air Basin. The City of Tracy General Plan Land Use Element designates the Project site as Industrial, which is intended to accommodate flex/office space, manufacturing, warehousing and distribution, and ancillary uses for workers' needs. Therefore, the proposed Project, which involves the development of light industrial, warehouse and distribution and related uses, is considered consistent with the site's General Plan land use designation and its traffic would be included in volumes projected for analysis of the General Plan. The SJVAPCD AQP is based on the growth assumptions of the City of Tracy General Plan and SJCOG RTP/SCS. Since the Project is consistent with the SJCOG RTP/SCS, and SJCOG RTP/SCS projections are incorporated into the SIP, the Project is also consistent with the SIP.

- *The project must contain in its design all reasonably available and feasible air quality control measures.*

The Project incorporates various policy and rule-required implementation measures that would reduce related emissions, including all of the current Air District rules and regulations.[18] For example, the proposed Project would be required to implement Air District Rule 9510, which ensures that the Project would fulfill the Air District's emissions reduction commitments in the relevant PM_{10} and Ozone Attainment plans. In addition, the Project would comply with all applicable stationary source permitting rules implemented by SJVAPCD, which further confirms the Project would not cause or contribute to any ambient air quality standard exceedances. Therefore, the proposed Project's potential impact relating to conflicts with the SJVAPCD's air quality plan is considered ***less than significant.***

[18] See here for further detail: https://www.valleyair.org/rules/1ruleslist.htm

Impact 3.3-2: The proposed Project would not result in a cumulatively considerable net increase of a criteria pollutant for which the region is in nonattainment under an applicable federal or State ambient air quality standard. (Less than Significant)

If an area is in nonattainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded the ambient air quality standard. It follows that if a Project exceeds the regional threshold for that nonattainment pollutant, then it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

The Air Basin is in nonattainment for PM_{10}, $PM_{2.5}$, and ozone. Therefore, if the proposed Project exceeds the regional thresholds for PM_{10}, or $PM_{2.5}$, then it would contribute to a cumulatively considerable impact for those pollutants. If the proposed Project exceeds the regional threshold for NOx or ROG (which are precursors to ozone), then it follows that the proposed Project would result in a cumulatively considerable contribution and thus result in a significant cumulative impact for ozone.

Regional emissions include those generated from all on-site and off-site activities. Regional significance thresholds have been established by the SJVAPCD because emissions from projects in the Air Basin can potentially contribute to the existing emission burden and possibly affect the attainment and maintenance of ambient air quality standards. Projects within the Air Basin with regional emissions that exceed any of the thresholds presented previously are considered to have a significant regional air quality impact.

CONSTRUCTION EMISSIONS

Emissions from construction activities represent temporary impacts that are typically short in duration, depending on the size, phasing, and type of project. Construction-related activities would result in Project-generated emissions from site preparation, grading, paving, building construction, and architectural coatings. CalEEMod™ (v.2022.1) was used to estimate construction emissions for the proposed Project. Table 3.3-8, below, provides the construction criteria pollutant emissions and thresholds associated with implementation of the proposed Project. It should be noted that the SJVAPCD recommends the same criteria pollutant thresholds for both construction and operational emissions, as provided within the *SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts* (2015).

TABLE 3.3-8: CONSTRUCTION PROJECT GENERATED EMISSIONS (TONS PER YEAR)

POLLUTANT	*CO*	*NOX*	*ROG*	*SOX*	*PM_{10}*	*$PM_{2.5}$*
THRESHOLD	100	10	10	27	15	15
MAXIMUM EMISSIONS	2.20	1.48	0.65	<0.01	0.38	0.18
EXCEEDS THRESHOLD?	**N**	**N**	**N**	**N**	**N**	**N**

SOURCE: CALEEMOD (V. 2022.1)

Additionally, the SJVAPCD has also developed daily mass emissions screening criteria for ROG, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ to determine whether project emissions would result in a violation of an AAQS. Because the NAAQS and CAAQS are concentration-based standards presented hourly, daily mass emissions are a more suitable estimate to determine whether a project would contribute to a violation of an AAQS. These screening criteria are 100 pounds per day for any pollutant. The following table (Table 3.3-9) provides the proposed Project's unmitigated construction emissions in pounds per day in comparison to this screening thresholds.

TABLE 3.3-9: CONSTRUCTION PROJECT GENERATED EMISSIONS (POUNDS PER DAY)

POLLUTANT	*CO*	*NOX*	*ROG*	*SOX*	*PM_{10}*	*$PM_{2.5}$*
THRESHOLD (POUNDS/DAY)	100	100	100	100	100	100
MAXIMUM EMISSIONS	12.1	8.12	3.57	0.02	2.07	0.99
EXCEEDS THRESHOLD?	**N**	**N**	**N**	**N**	**N**	**N**

SOURCE: CALEEMOD (V.2022.1)

If the proposed Project's emissions will exceed the SJVAPCD's threshold of significance for construction-generated emissions, the proposed Project would have a significant impact on air quality. As shown in Table 3.3-8, the proposed Project, without mitigation, would not exceed the SJVAPCD thresholds of significance for construction criteria pollutants. Additionally, as shown in Table 3.3-9, the proposed Project would not exceed the daily mass screening criteria thresholds during Project construction. Therefore, the Project's construction-related criteria pollutant emissions would be considered to have a ***less than significant*** impact, and no mitigation for construction-related criteria pollutant emissions is warranted.

OPERATIONAL EMISSIONS

The SJVAPCD is tasked with implementing programs and regulations required by the Federal Clean Air Act and the California Clean Air Act. In that capacity, the SJVAPCD has prepared plans to attain Federal and State ambient air quality standards. To achieve attainment with the standards, the SJVAPCD has established thresholds of significance for criteria pollutant emissions in its *SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts* (2015). Projects with emissions below the thresholds of significance for criteria pollutants would be determined to "Not conflict or obstruct implementation of the District's air quality plan", and also to not have a cumulatively considerable net increase of a criteria pollutant for which the project region is in non-attainment. If the proposed Project's emissions will exceed the SJVAPCD's threshold of significance for operational-generated emissions, the proposed Project will have a significant impact on air quality and all feasible mitigation measures are required to be implemented to reduce emissions to below the threshold of significance, to the extent feasible.

A main source of pollution generated by the proposed Project would be due to the generation of mobile source emissions by vehicles traveling to and from the Project site. According to Kimley Horn (as provided by the Traffic Analysis prepared for the proposed Project), the proposed Project is

anticipated to generate approximately the proposed Project would increase total vehicle trips by approximately 382 new daily trips.

CalEEMod™ (v.2022.1) was used to model operational emissions of the proposed Project. The SJVAPCD provides a list of applicable air quality emissions thresholds. Table 3.3-10 shows proposed Project emissions as provided by CalEEMod. As shown in Table 3.3-10 below, Project operational emissions would not exceed any of the SJVACPD operational thresholds of significance.

TABLE 3.3-10: OPERATIONAL PROJECT GENERATED EMISSIONS (TONS PER YEAR)

POLLUTANT	*CO*	*NOX*	*ROG*	*SOX*	*PM_{10}*	*$PM_{2.5}$*
THRESHOLD	100	10	10	27	15	15
EMISSIONS	2.51	1.68	1.18	0.02	0.79	0.23
EXCEEDS THRESHOLD?	**N**	**N**	**N**	**N**	**N**	**N**

SOURCE: CALEEMOD (V.2022.1)

Additionally, the SJVAPCD has also developed daily mass emissions screening criteria for ROG, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ to determine whether project emissions would result in a violation of an AAQS. Because the NAAQS and CAAQS are concentration-based standards presented hourly, daily mass emissions are a more suitable estimate to determine whether a project would contribute to a violation of an AAQS. These screening criteria are 100 pounds per day for any pollutant. The following table (Table 3.3-11) provides the proposed Project's unmitigated operational emissions in pounds per day in comparison to this screening thresholds. As shown in Table 3.3-11, the proposed Project's operational emissions would not exceed any of the daily mass screening criteria thresholds.

TABLE 3.3-11: OPERATIONAL PROJECT GENERATED EMISSIONS (POUNDS PER DAY)

POLLUTANT	*CO*	*NOX*	*ROG*	*SOX*	*PM_{10}*	*$PM_{2.5}$*
THRESHOLD (POUNDS/DAY)	100	100	100	100	100	100
EMISSIONS	13.7	9.23	6.46	0.08	4.34	1.24
EXCEEDS THRESHOLD?	**N**	**N**	**N**	**N**	**N**	**N**

SOURCE: CALEEMOD (V.2022.1)

Proposed Project mitigated operational emissions are shown in Table 3.3-12 based on implementation of SJVAPCD Rule 9510. While compliance with SJVAPCD Rule 9510 is regulatorily required, the rule itself is an indirect source rule designed to achieve emission reductions from development projects. Thus, it is included here to represent the SJVAPCD regulatory requirement to mitigate the operational emissions.[19]

[19] The NOx emissions were adjusted to reflect the 33.3% reduction required, per compliance with Air District Rule 9510.

TABLE 3.3-12: OPERATIONAL PROJECT GENERATED EMISSIONS (TONS PER YEAR) - MITIGATED

POLLUTANT	*CO*	*NOX*	*ROG*	*SOX*	*PM_{10}*	*$PM_{2.5}$*
THRESHOLD	100	10	10	27	15	15
EMISSIONS	2.51	1.12	1.18	0.02	0.79	0.23
EXCEEDS THRESHOLD?	**N**	**N**	**N**	**N**	**N**	**N**

SOURCE: CALEEMOD (V.2022.1)

Since the operational emissions shown in Table 3.3-12 would not exceed any of the SJVAPCD's operational significance thresholds this impact would be less than significant.

PROJECT DESIGN FEATURE (REGULATORY COMPLIANCE)

In accordance with SJVAPCD Rule 9510, an Air Impact Assessment (AIA) would be prepared for the Project based on the applicability and exemption criteria of the rule.[20] The rule includes general mitigation requirements for construction and/or operational emissions. Per the general mitigation requirements of Rule 9510, the Project would reduce the project's operational baseline NOx emissions 33.3% over a period of ten years as quantified in the approved AIA. The project would pay any off-site fees in full by the invoice due date or prior to generating the emissions associated with the Project or any phase thereof, whichever occurs first.

PROJECT EFFECTS ON PUBLIC HEALTH

Criteria pollutants generated by the Project are associated with some form of health risk (e.g., asthma). Criteria pollutants can be classified as either regional or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. Ozone is considered a regional criteria pollutant, whereas CO, NO_2, SO_2, and lead (Pb) are localized pollutants. PM can be both a local and a regional pollutant, depending on its composition. The SJVAPCD establishes thresholds at levels allow the SJVAPCD to come into compliance with the CAAQS and NAAQS. The CAAQS and NAAQS are set at levels protective of human health, and emissions below the SJVAPCD thresholds are deemed to not have a significant impact on human health.

Ozone

O_3 is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of volatile organic compounds (VOC) (also known as ROG) and oxides of nitrogen (NO_x) in the presence of sunlight. The reactivity of O_3 causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O_3 not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O_3 for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function

[20] Available at: https://www.valleyair.org/rules/currntrules/r9510-a.pdf. Accessed: September 2022.

generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths (U.S. Environmental Protection Agency 2019a). The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggest that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion (U.S. Environmental Protection Agency 2019b).

The Project would generate emissions of ROG and NOx during Project operational activities, as shown in Table 3.3-10 through Table 3.3-12. Increases in ROG and NOx could affect people with impaired respiratory systems, but also healthy adults and children. However, the increases of these pollutants generated by the proposed Project are under the applicable thresholds, which are set to be protective of human health, accounting for cumulative emissions in the air district. The increases in ROG and NOx generated by the proposed Project when combined with the existing ROG and NOx emitted regionally, would have a less than significant health impact.

Particulate Matter

Based on studies of human populations exposed to high concentrations of particles (sometimes in the presence of SO_2) and laboratory studies of animals and humans, PM can cause major effects of concern for human health. These include effects on breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against foreign materials, damage to lung tissue, carcinogenesis and premature death. Small particulate pollution has health impacts even at very low concentrations – indeed no threshold has been identified below which no damage to health is observed. The major subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary or cardiovascular disease or influenza, asthmatics, the elderly and children.

Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Studies show that every 1 microgram per cubic meter reduction in $PM_{2.5}$ results in a one percent reduction in mortality rate for individuals over 30 years old (Bay Area Air Quality Management District, 2017). Long-term exposures, such as those experienced by people living for many years in areas with high particle levels, have been associated with problems such as reduced lung function and the development of chronic bronchitis – and even premature death. Additionally, depending on its composition, both PM_{10} and $PM_{2.5}$ can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (U.S. Environmental Protection Agency 2019c).

The Project would generate emissions of PM during Project operational activities, as shown in Table 3.3-10 through Table 3.3-12. Although the exact effects of such emissions on local health are not known, it is likely that the increases in PM generated by the proposed Project would be minimal, even for people with impaired respiratory systems, located in the immediate vicinity of the Project site. The increases of these pollutants generated by the proposed Project would not on their own generate an increase in the number of days exceeding the NAAQS or CAAQS standards. In addition, because PM generated by the proposed Project is less than the air district's threshold, such emissions when combined with the existing PM emitted regionally would have minimal health effect on people located in the immediate vicinity of the Project site.

UFPs are a subset of PM and represent a health concern. Such particles have been shown to have the potential for even greater health effects than PM_{10} or $PM_{2.5}$, due to their even smaller particle sizes. However, there are no adopted rules or regulations by the U.S. EPA or California air districts regarding UFPs. Moreover, attainment status related to UFPs is not monitored by the U.S. EPA or California air districts, and the SJVAPCD does not provide any guidance for assessment, thresholds, or mitigation associated with UFPs. Additionally, air districts are not required to monitor UFPs. Nevertheless, funding for harm reduction and monitoring of UFPs is occurring throughout California. For example, the Bay Area Air Quality Management District (BAAQMD), a neighboring air district, established in 2011 a comprehensive program to study UFPs. As part of this program, the BAAQMD began making measurements at four air monitoring stations, with additional monitoring stations expected to be online soon. At each station, the number of particles in a specified volume of air is counted every second. In addition to the number counts, sampling began in 2015 at two stations to gather data on UFP composition. Collected samples are analyzed for nineteen metals. Data obtained from these measurements is used to identify major UFP sources in the San Francisco Bay Area, and to evaluate models and refine estimates of UFP's public health impact.[21] Separately, the SJVAPCD provides grant funding for off-road engine projects through their grants and incentives programs, which reduce UFPs[22]; the U.S. EPA Pacific Southwest region has provided funding for both the South Coast Air Quality Management District and the San Joaquin Valley Air Pollution Control District to help spur early-stage, innovative technologies that need further testing and demonstration prior to massive deployment and commercialization of California Clean Air Initiative (CATI) projects.[23] Examples of such projects include Hybrid Natural Gas-Electric and Fully Electric Class 8 Trucks, Zero Emission Heavy-Duty Electric Trucks, Zero- and Near-Zero Emission School Buses, Electric Delivery Trucks, and School Bus Air Filtration. Other, numerous efforts are underway throughout the state to reduce PM emissions, which also tend to reduce emissions of UFPs (since UFPs are a subset of PM).

Different sources of PM generate differing levels of UFPs. For example, almost all the PM emitted by natural gas combustion is in the $PM_{0.1}$ size fraction, whereas this is only true for less than half of

[21] See: https://www.baaqmd.gov/about-air-quality/air-quality-measurement/special-air-monitoring-projects/special-reports/ultrafine-particulate-matter?sc_lang=en&switch_lang=true
[22] See: https://ww2.valleyair.org/grants/
[23] See: https://www.epa.gov/cati/california-clean-air-technology-initiative-cati-projects

the PM emitted by gasoline and diesel fuel combustion.[24] Therefore, estimating $PM_{0.1}$ can be difficult, given that it is not incorporated into the modeling software recommended by the CARB and the California air districts (i.e. CalEEMod). Nevertheless, a quantitative estimate of the Project's $PM_{0.1}$ is provided under Impact 3.3-3, based on assumptions provided in available literature.

Discussion

It is well documented from scientific studies that criteria pollutants can have adverse health effects. The federal and state governments have established the NAAQS or CAAQS as an attempt to regionally, and cumulatively, assess and control the health effects that criteria pollutants have within Air Basins. It is anticipated that public health will continue to be affected by the emission of criteria pollutants, especially by those with impaired respiratory systems in the City of Tracy and the surrounding region so long as the region does not attain the CAAQS or NAAQS. However, the Project's emissions are below the SJVAPCD's thresholds of significance, where were established to enable the Air Basin to achieve attainment for the NAAQS and CAAQS standards. As such, the Project emissions would not be a cumulatively considerable contribution.

CONCLUSION

Criteria pollutant emissions generated by the proposed Project during operation would not exceed applicable thresholds of significance for Project operation or construction. Therefore, this impact would be ***less than significant***.

Impact 3.3-3: The proposed Project would not expose sensitive receptors to substantial pollutant concentrations. (Less than Significant)

Sensitive receptors are those individuals within the population that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptors include children, the elderly, and those with pre-existing serious health problems affected by air quality, and sensitive receptor locations include schools, parks and playgrounds, day care center, nursing homes, hospitals, and residences. The closest sensitive receptors are the residences located approximately 750 meters south of the project site, near Hansen Road, and just to the north of the California Aqueduct.

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air. However, their high toxicity or health risk may pose a threat to public health even at very low concentrations. In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined and for which the state and federal governments have set ambient air quality standards.

[24] Venecek, M. A., Yu, X., and Kleeman, M. J.: Predicted ultrafine particulate matter source contribution across the continental United States during summertime air pollution events, Atmos. Chem. Phys., 19, 9399–9412, https://doi.org/10.5194/acp-19-9399-2019, 2019.

CONSTRUCTION-RELATED DIESEL PARTICULATE MATTER

Project construction would generate diesel particulate matter emissions from the use of off-road diesel equipment required. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to toxic air contaminant emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment would be temporary and episodic. The duration of exposure would be short and exhaust from construction equipment would dissipate rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. The closest sensitive receptors to the Project site are located as follows:

- A residence is located approximately 0.70 miles (3,696 feet) to the east of the Project site;
- A cluster of residences is located approximately 0.50 miles (2,635 feet) to the south of the Project site; and
- Additional scattered residences are located approximately 0.64 miles (3,400) feet to the southwest of the Project site.

The California Office of Environmental Health Hazard Assessment has not identified short-term health effects from diesel particulate matter. Construction is temporary and would be transient throughout the site (i.e., move from location to location) and would not generate emissions in a fixed location for extended periods of time. Construction activities would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than five minutes to further reduce nearby sensitive receptors' exposure to temporary and variable diesel particulate matter emissions. For these reasons, diesel particulate matter generated by Project construction activities, in and of itself, would not expose sensitive receptors to substantial amounts of air toxins. Moreover, as shown in Table 3.3-8, the proposed project's construction-related criteria pollutant emissions would not exceed the applicable criteria pollutant thresholds from PM (including both $PM1_0$ and $PM_{2.5}$). Therefore, impacts to sensitive receptors during construction would be negligible and this is a ***less than significant*** impact.

TOXIC AIR CONTAMINANTS

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. The SJVAPCD considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. There are no traditional sensitive receptors such as residences, convalescent facilities, or schools that are proposed as part of the proposed Project.

The proposed Project has the potential to impact nearby sensitive receptors during the proposed Project's operational phase, due to the Project's generation of trips by heavy-duty diesel trucks, which are an emitter of diesel particulate matter (DPM). In particular, DPM is emitted from on-site heavy-duty truck vehicle circulation and idling, and off-site mobile travel. Combined, these sources of DPM have the potential to generate substantial TACs on nearby sensitive receptors, including those located nearest to the Project site. The SJVAPCD has established a screening calculator entitled the "Prioritization Calculator". An estimate of DPM emissions generated by the heavy-duty trucks and delivery vans associated with the proposed project was calculated for on-site mobile and idling emissions, and off-site mobile emissions 0.25 miles from the Project site, in accordance with the California Office of Environmental Health Hazard Assessment (OEHHA) guidance, as recommended by the SJVAPCD. The estimate of DPM emissions were based on the data provided in the Traffic Analysis for the proposed project, and with diesel particulate matter mobile emission rates from CARB's EMFAC2021 database (for year 2022, San Joaquin County; emission rates for DPM; 10 MPH for on-site truck travel and 55 MPH for off-site truck travel), and from standard heavy-duty truck idling emission rates from CARB.

The results of the screening analysis show that the cancer and non-cancer risks associated with the proposed project are below the SJVAPCD screening thresholds contained within their Prioritization Calculator. Specifically, the Prioritization Calculator estimates that the prioritization score associated with total cancer risk from proposed project DPM would be approximately 0.0348,[25] well below the SJVAPCD threshold of 10 that would require development of air toxics Health Risk Assessment (HRA) that includes air dispersion modeling. Additionally, non-cancer (i.e. chronic and acute risks) associated with project DPM would also be well below the applicable thresholds for the Maximally Exposed Individual (i.e. greater than or equal to the Hazard Index level of 1). Therefore, the complex air dispersion modeling using software such as AERMOD is not required. See Appendix B for further detail.

No residual TAC emissions and corresponding cancer risk are anticipated after Project construction. The proposed Project is not anticipated to generate long-term, operational sources of TAC emissions because the proposed Project would only include a warehouse. The Project would not include heavy industrial uses or other land uses typically associated with stationary sources of TACs. As such, the Project would not result in substantial TAC emissions that may affect nearby receptors, nor would the Project be exposed to nearby sources of TACs. Impacts would be less than significant.

It should be noted that the mobile vehicles generated by the Project during operation would generate UFPs through vehicle emissions, braking, and tire wear. Like PM in general (though generating even higher risk per unit than larger particle sizes) UFPs are notable for their potential to generate chronic risks associated with cardiovascular disease, potential long-term loss of long-function, and cancer. According to a recent study prepared for the European Geosciences Union, UFPs vary widely as a proportion of PM overall, depending on location; specifically, the $PM_{0.1}$ to

[25] It should be noted that the distance between the project site and the nearest sensitive receptors (approximately 750 meters) is the primary reason the proposed project's prioritization score is so low; however, even if a sensitive receptor were within 100 meters of the project site, the prioritization score would still be below the SJVAPCD prioritization score threshold of 10. See Appendix B for further detail.

$PM_{2.5}$ ratio analyzed in approximately 39 cities in the United States varied from approximately 1% to 16%.[26] These factors vary so widely because the sources of $PM_{0.1}$ vary substantially from city to city. For example, cities that are located close to substantial sources of natural gas combustion have higher $PM_{0.1}$ to $PM_{2.5}$ ratios, since almost all the PM emitted by natural gas combustion is in the $PM_{0.1}$ size fraction, whereas this is only true for less than half of the PM emitted by gasoline and diesel fuel combustion. Taken together, these facts support the potential importance of natural gas combustion for ambient $PM_{0.1}$ concentrations. The city analyzed in the study with the greatest similarity to the City of Tracy (i.e. where the Project is located) was the City of Bakersfield, given its similarity in location within the Central Valley region. The ratio of $PM_{0.1}$ to $PM_{2.5}$ for Bakersfield was found to be approximately 11%. Absent data specific to the City of Tracy, this data is presumed to be the best available data and reasonable for use in estimating $PM_{0.1}$ levels in this case. Therefore, given the operational Project's estimated 0.07 tons per year of $PM_{2.5}$ (see Table 3.3-12), the total operational $PM_{0.1}$ generated by the Project is estimated to be approximately 0.01 tons per year (approximately 15 lbs/year). This is equivalent to 0.04 lbs/day of $PM_{0.1}$. While there is not specifically a quantitative threshold of significance established by the SJVAPCD for $PM_{0.1}$, the quantity estimated is considered small relative to thresholds established for other particulate matter. From an incremental health perspective, this level of UFPs generated by the Project would not be substantial. As such, the Project would not result in substantial UFP emissions that may affect nearby receptors.

Overall, as described, the proposed project would not exceed the maximum risk values established by the SJVAPCD for TACs, as described above. All receptor types would be below the applicable SJVAPCD significance thresholds. In addition, criteria pollutant emission would be below the applicable SJVAPCD significance thresholds for criteria pollutants, as described under Impacts a) and b). Impacts to sensitive receptors from substantial pollutant concentrations would be a ***less than significant*** impact.

CO HOTSPOTS

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds.

Although the SJVAPCD has not established a specific numerical screening threshold for CO impacts, the Bay Area Air Quality Management District (BAAQMD) has established that, under existing and future vehicle emissions rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix (i.e., bridges and tunnels)—in order to generate a substantial CO

[26] Venecek, M. A., Yu, X., and Kleeman, M. J.: Predicted ultrafine particulate matter source contribution across the continental United States during summertime air pollution events, Atmos. Chem. Phys., 19, 9399–9412, https://doi.org/10.5194/acp-19-9399-2019, 2019.

impact. As described in Section 3.10: Transportation and Circulation of this Draft EIR, and as provided within the Traffic Analysis prepared by Kimley Horn for the proposed Project, the proposed Project would generate a maximum of approximately 37 AM peak hour trips and 72 PM peak hour trips, which would be significantly less than the volumes cited above. Thus, the proposed project would not have the potential to substantially increase CO hotspots at intersections in the vicinity of the Project site, and impacts would be ***less than significant***.

VALLEY FEVER

Valley Fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, Coccidioides immitis (C. immitis). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley Fever. By geographic region, hospitalizations for Valley Fever in the San Joaquin Valley increased from 230 (6.9 per 100,000 population) in 2000 to 701 (17.7 per 100,000 population) in 2007. Within the region, Kern County reported the highest hospitalization rates, increasing from 121 (18.2 per 100,000 population) in 2000 to 285 (34.9 per 100,000 population) in 2007, and peaking in 2005 at 353 hospitalizations (45.8 per 100,000 population). The Centers for Disease Control and Prevention indicates that 752 of the 8,657 persons (8.7 percent) hospitalized in California between 2000 and 2007 for Valley Fever died.[27]

The distribution of C. immitis within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for C. immitis growth. Avoidance, when feasible, of sites favorable for the occurrence of C. immitis is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of C. immitis:[28]

1. Rodent burrows (often a favorable site for C. immitis, perhaps because temperatures are more moderate and humidity higher than on the ground surface).
2. Prehistoric Indian campsites near fire pits.
3. Areas with sparse vegetation and alkaline soils.
4. Areas with high salinity soils.
5. Areas adjacent to arroyos (where residual moisture may be available).
6. Packrat middens.
7. Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils.

[27] The Centers for Disease Control and Prevent (CDC). 2009. Increase in Coccidioidomycosis – California, 2000-2007. February 13. Website: https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5805a1.htm. Accessed June 8, 2022.

[28] United States Geological Survey (USGS). 2000. Operational Guidelines (Version 1.0) for Geological Fieldwork in Areas Endemic for Coccidioidomycosis (Valley Fever). Website: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.486.1526&rep=rep1&type=pdf. Accessed June 8, 2022.

8. Sandy well aerated soil with relatively high-water holding capacities.

Sites within endemic areas less favorable for the occurrence of C. immitis include:

1. Cultivated fields
2. Heavily vegetated areas (e.g., grassy lawns)
3. Higher elevations (above 7,000 feet)
4. Areas where commercial fertilizers (e.g., ammonium sulfate) have been applied
5. Areas that are continually wet
6. Paved (asphalt or concrete) or oiled areas
7. Soils containing abundant microorganisms
8. Heavily urbanized areas where there is little undisturbed virgin soil

The Project site is relatively undeveloped and is surround by undeveloped, agricultural, industrial, and residential land uses which are semi-rural to urban in character. Because the majority of the Project site and the immediately surrounding vicinity consists of urbanized development or cultivated fields, the Project site is an area that would lead to a low probability of having C. immitis growth sites and exposure from disturbed soil.

Construction activities would generate fugitive dust that could contain C. immitis spores. The proposed Project would be required to minimize the generation of fugitive dust during construction activities by complying with the SJVAPCD's District Rule 8021. District Rule 8021 requires limitation of fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities, by implementing control measures such as pre-watering the Project site, phasing construction work to reduce the amount of disturbed surface at any one time, and applying water or other suppressants to unpaved haul/access roads and unpaved vehicle/equipment traffic areas. Therefore, this regulation would ensure that Valley Fever impacts during construction are less than significant.

During operations, dust emissions are anticipated to be negligible, because the Project site would be occupied by buildings, pavement, and landscaped areas after construction is complete. Therefore, Project operations would not occur on undeveloped sites and dust emissions typically associated with activity on unpaved surfaces would be negligible. This condition would preclude the possibility of the proposed Project from generating significant fugitive dust that may contribute to Valley Fever exposure. Impacts would be ***less than significant***.

ASBESTOS AND LEAD-BASED PAINT EXPOSURE

According to a map of areas where naturally occurring asbestos in California are likely to occur, there are no such areas in the vicinity of the Project site.[29] Therefore, development of the proposed Project is not anticipated to expose receptors to naturally occurring asbestos. It is noted that the potential to release asbestos containing materials and lead-based paint that may occur in the on-

[29] United States Geological Survey (USGS). 2011. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. Website: https://pubs.usgs.gov/of/2011/1188/. Accessed June 8, 2022.

site structures are discussed in Section 3.8, Hazards and Hazardous Materials, of this Draft EIR. As discussed, impacts related to these materials would be less-than-significant with mitigation in Section 3.8.

Overall, this impact would be ***less than significant***.

CONCLUSION

Implementation of the proposed project would not result in a significant increased exposure of sensitive receptors to localized concentrations of TACs, generate substantial exposure to Valley Fever, asbestos or lead-based paint, or create a CO hotspot. This project would have a ***less than significant*** impact relative to this topic.

Impact 3.3-4: The proposed Project would not cause exposure to other emissions (such as those leading to odors) adversely affecting a substantial number of people. (Less than Significant)

The following text addresses odors. Other emissions (including criteria pollutants and TACs) are addressed in Impacts 3.3-1 through 3.3-3.

While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD. The general nuisance rule (Health and Safety Code §41700) is the basis for the threshold.

Examples of facilities that are known producers of odors include: Wastewater Treatment Facilities, Chemical Manufacturing, Sanitary Landfill, Fiberglass Manufacturing, Transfer Station, Painting/Coating Operations (e.g. auto body shops), Composting Facility, Food Processing Facility, Petroleum Refinery, Feed Lot/Dairy, Asphalt Batch Plant, and Rendering Plant.

If a project proposes to locate receptors and known odor sources in proximity to each other, further analysis may be warranted. However, if a project would not locate receptors and known odor sources in proximity to each other, then further analysis is not warranted. The proposed Project does not include new industrial uses that are not already present in the vicinity of the Project site. Moreover, since the proposed Project would not be a source of offensive odors, sensitive receptors located near to the Project site would not be exposed by the Project to significant odors that would affect a substantial number of people. Air district Rule 402 prohibits any mobile or stationary source generating an objectionable odor, with the exception of odors emanating from certain agricultural operations. The California Health and Safety Code §41700 and Air District Rule 402 prohibit emissions of air contaminants from any source that cause nuisance or annoyance to a considerable number of people or that present a threat to public health or cause property damage. Compliance with these rules would preclude land uses proposed under the proposed Project from emitting objectionable odors.

CONCLUSION

The proposed Project does not propose uses that would create new odors that would adversely affect a substantial number of people. The proposed Project also does not introduce any new sensitive receptors. Therefore, operation of the proposed Project would not result in significant objectionable odors. Impacts associated with exposure to odors would be ***less than significant.***

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This section describes the regulatory setting, regional biological resources, and impacts that are likely to result from Project implementation. The analysis contained in this section is intended to be at a Project-level, and covers impacts associated with the conversion of the entire site to an urban use. This section is based in part on the following documents and reports: *San Joaquin County General Plan* (San Joaquin County, 2016), *City of Tracy General Plan* (City of Tracy, 2011), *City of Tracy General Plan EIR* (City of Tracy, 2011), the *Phase I Environmental Site Assessment* (ESA) *of West Schulte Road – 18.66 acres, 16286 West Schulte Road, Tracy, California 95377* (ATC Group Services LLC, November 2022), the *Preliminary Arborist Report and Tree Inventory* (CalTLC, July 2022), as well as a site-specific survey (2022) and analysis.

One comment was received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the San Joaquin County Council of Governments (SJCOG) (December 14, 2023).

KEY TERMS

The following key terms are used throughout this section to describe biological resources and the framework that regulates them:

Hydric Soils. One of the three wetland identification parameters, according to the Federal definition of a wetland, hydric soils have characteristics that indicate they were developed in conditions where soil oxygen is limited by the presence of saturated soil for long periods during the growing season. There are approximately 2,000 named soils in the United States that may occur in wetlands.

Hydrophytic Vegetation. Plant types that typically occur in wetland areas. Nearly 5,000 plant types in the United States may occur in wetlands. Plants are listed in regional publications of the U.S. Fish and Wildlife Service (USFWS) and include such species as cattails, bulrushes, cordgrass, sphagnum moss, bald cypress, willows, mangroves, sedges, rushes, arrowheads, and water plantains.

Sensitive Natural Community. A sensitive natural community is a biological community that is regionally rare, provides important habitat opportunities for wildlife, is structurally complex, or is in other ways of special concern to local, State, or Federal agencies. The California Environmental Quality Act (CEQA) identifies the elimination or substantial degradation of such communities as a significant impact. The California Department of Fish and Wildlife (CDFW) tracks sensitive natural communities in the California Natural Diversity Database (CNDDB).

Special-Status Species. Special-status species are those plants and animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by Federal, State, or other agencies. Some of these species receive specific protection that is defined by Federal or State endangered species legislation. Others have been designated as "sensitive" on the basis of adopted policies and expertise of State resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as "special status species" in this report, following a convention that has developed in

practice but has no official sanction. For the purposes of this assessment, the term “special status” includes those species that are:

- Federally listed or proposed for listing under the Federal Endangered Species Act (50 CFR 17.11-17.12);
- Candidates for listing under the Federal Endangered Species Act (61 FR 7596-7613);
- State listed or proposed for listing under the California Endangered Species Act (14 CCR 670.5);
- Species listed by the USFWS or the CDFW as a species of concern (USFWS), rare (CDFW), or of special concern (CDFW);
- Fully protected animals, as defined by the State of California (California Fish and Game Code Section 3511, 4700, and 5050);
- Species that meet the definition of threatened, endangered, or rare under CEQA (CEQA Guidelines Section 15380);
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.); and
- Plants listed by the California Native Plant Society (CNPS) as rare, threatened, or endangered (List 1A and List 2 status plants in Skinner and Pavlik 1994).

Waters of the U.S. The Federal government defines waters of the U.S. as "lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows" [33 C.F.R. §328.3(a)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the U.S. Army Corps of Engineers (USACE) as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” [33 C.F.R. §328.3(e)].

Wetlands. Wetlands are ecologically complex habitats that support a variety of both plant and animal life. The Federal government defines wetlands as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” [33 C.F.R. §328.3(b)]. Wetlands require wetland hydrology, hydric soils, and hydrophytic vegetation. Examples of wetlands include freshwater marsh, seasonal wetlands, and vernal pool complexes that have a hydrologic link to waters of the U.S.

METHODS

Pre-Field Investigation

Prior to the field investigation, numerous maps, databases, and reports were reviewed including:

- U.S. Geological Survey (USGS) 7.5-minute Quadrangle
- USGS National Hydrography Data Set
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps
- National Resource Conservation Service (NRCS) Soil Survey
- California Wildlife Habitat Relationships (CWHR) maps

- California Natural Diversity Database (CNDDB)
- California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants
- U.S. Fish and Wildlife Service's (USFWS) IPac
- U.S. Fish and Wildlife Service's (USFWS) Official List

Field Survey

The project site was subject to a field survey by Principal Biologist Steve McMurtry on April 16, 2022. The site reconnaissance survey served several purposes. First, it served as reconnaissance of the site to establish the existing conditions of the site and to verify information gathered in the pre-field investigation. This included identification of the habitat types, hydrologic features, topography, soil characteristics, and vegetation. The field investigations followed the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2009). Habitat was recorded. Visibility during each survey was excellent.

3.4.1 ENVIRONMENTAL SETTING

GEOMORPHIC PROVINCES/BIOREGION

The City of Tracy is located in the western portion of the Great Valley Geomorphic Province of California. The Great Valley Geomorphic Province is a broad structural trough bounded by the tilted block of the Sierra Nevada on the east and the complexly folded and faulted Coast Ranges on the west. The San Joaquin River is located just south and west of the City. This major river drains the Great Valley Province into the San Joaquin Delta to the north, ultimately discharging into the San Francisco Bay to the northwest.

The City of Tracy is located within the San Joaquin Valley Bioregion, which is comprised of Kings County, most of Fresno, Kern, Merced, and Stanislaus counties, and portions of Madera, San Luis Obispo, and Tulare counties. The San Joaquin Valley Bioregion is the third most populous out of ten bioregions in the state, with an estimated 2 million people. The largest cities within this Bioregion are Fresno, Bakersfield, Modesto, and Stockton. Interstate 5 and State Route 99 are the major north-south roads that run the entire length of the bioregion.

The bioregion is bordered on the west by the coastal mountain ranges. Its eastern boundary joins the southern two-thirds of the Sierra bioregion, which features Yosemite, Kings Canyon, and Sequoia National Parks. At its northern end, the San Joaquin Valley bioregion borders the southern end of the Sacramento Valley bioregion. To the west, south, and east, the bioregion extends to the edges of the valley floor.

Habitat in the bioregion includes vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannah. Historically, millions of acres of wetlands flourished in the bioregion, but stream diversions for irrigation dried all but about five percent. Remnants of the wetland habitats are protected in this bioregion in publicly owned parks, reserves, and wildlife areas. The bioregion is considered the state's top agricultural producing region with the abundance of fertile soil.

LOCAL SETTING

The Schulte Road Warehouse project site (project site) is located at 16286 West Schulte Road in unincorporated San Joaquin County, California (see Figures 2.0-1 and 2.0-2 in Chapter 2.0, Project Description). The project site is identified by Assessor Parcel Numbers (APNs) 209-230-250 and -260. The larger parcel (APN 209-230-250) is proposed for development as part of the project. The smaller parcel (APN 209-230-260), referred to as the Williams Communication Parcel, would not be developed as part of the proposed project.

The southern portion of the Development Area is currently developed with three single-family residences and six ancillary structures (see Figure 2.0-3 in Chapter 2.0, Project Description). The remainder of the Development Area consists primarily of ruderal grasses which are regularly disced. According to the Preliminary Arborist Report and Tree Inventory (CalTLC, July 2022) completed for the project (see Appendix C), a total of 33 trees are located on-site. The Development Area topography is generally flat, with the exception of two five- to ten-foot historic ponds located along the eastern site boundary. The historic ponds were previously associated with on-site dairy operations and no longer contain water.

According to the Phase I ESA completed for the project (ATC Group Services LLC, November 2022) (see Appendix E), the site has historically been used for agricultural and residential uses since at least 1940.

CALIFORNIA WILDLIFE HABITAT RELATIONSHIP SYSTEM

The California Wildlife Habitat Relationship (CWHR) habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 non-vegetated.

The Project site is considered to have low biological diversity due to the conversion of the native habitat of the site for historical agricultural production. According to the California Wildlife Habitat Relationship System there are three cover types (wildlife habitat classifications) in the Project site out of 59 found in the State. The majority of the Project site is labeled pasture with only small portions of the site labeled irrigated hayfield and dryland grain crops. Figure 3.4-1 illustrates the land cover type map for the Project site and below is a brief description of these CWHR habitats.

Pastures are planted on flat and gently rolling terrain. Flat terrain is irrigated by the border and check method of irrigation, except on sandy soils or where water supplies are limited. Pastures established on sandy soils or hills are sprinklered. Hilly lands also use wild flooding; that is, ditches that follow the grade along ridges and hillsides, where water is released at selected points along the ditch. Climate influences the length of the growing season. For example, pastures at higher elevations or in the north have a shorter growing season.

Dryland Grain Crop habitats are often located on flat to gently rolling terrain. When flat terrain is put into crop production, it usually is leveled to facilitate irrigation. Rolling terrain is either dry farmed or irrigated by sprinklers. Vegetation in the dryland (nonirrigated) grain and seed crops habitat includes seed producing grasses, primarily barley, cereal rye, oats, and wheat. These seed and grain crops are annuals. They are usually planted by drilling in rows which produce solid stands, forming 100 percent canopy at maturity in good stands. They are normally planted in fall and harvested in spring. However, they may be planted in rotation with other irrigated crops and winter wheat or barley may be planted after harvest of a previous crop in the fall, dry farmed (during the wet winter and early spring months), and then harvested in late spring.

Irrigated Hayfield normally has a 2 to 6 months initial growing period, depending on climate and soil. This habitat is dense, with nearly 100 percent cover. Average height is about 0.46 m. (1.5 feet) tall. Planted fields generally are monocultures (the same species or mixtures or a few species with similar structural properties). Structure changes to a lower stature following each harvest, grows up again and reverts to bare ground following plowing or discing. Plowing may occur annually, but is usually less often. Layering generally does not occur in this habitat. Unplanted "native" hay fields may contain short and tall patches. If not harvested for a year, they may develop a dense thatch of dead leaves between the canopy and the ground.

SPECIAL-STATUS SPECIES

The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDB), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants, and the U.S. Fish and Wildlife Service's (USFWS) records of listed endangered and threatened species from the IPAC database. The background search was regional in scope and focused on the documented occurrences within 10 miles (nine quad) of the Project site. The following nine quadrangles were searched: Byron Hot Springs, Clifton Court Forebay, Union Island, Altamont, Midway, Tracy, Mendenhall Springs, Cedar Mountain, and Lone Tree Creek. Table 3.4-1 provides a list of special-status plants and Table 3.4-2 provides a list of special-status animals. The presence determinations were made by principal biologist, Steve McMurtry (De Novo Planning Group, 2022) and are based on the site survey, review of on-site habitat conditions, and the CNDDB results.

TABLE 3.4-1: SPECIAL-STATUS PLANT SPECIES WHICH MAY OCCUR IN PROJECT AREA

SPECIES	*STATUS (FED./CA/ CNPS/SJMSCP)*	*GEOGRAPHIC DISTRIBUTION, HABITAT, AND BLOOMING PERIOD*	*PRESENCE DETERMINATION*
Sharsmith's onion *Allium sharsmithiae*	--/--/1B.3/No	Native to California found in Alameda, San Joaquin, Stanislaus, and Santa Clara Counties within the Coast Ranges Foothill woodland. March – May.	Not expected to occur; no suitable habitat.
Large-flowered fiddleneck *Amsinckia grandiflora*	E/E/1B.1/Yes	Native to California found in Contra Costa, Alameda, and San Joaquin Counties. Found in grasslands; it grows on sedimentary loam in mesic areas of its range. April – May.	Low potential to occur; marginal habitat present along less disturbed field edges; No CNDDB records within 3 miles of the site.
Contra Costa manzanita *Arctostaphylos manzanita ssp. laevigata*	--/--/1B.2/No	Native to California found in San Joaquin, Contra Costa, Santa Rosa, Mendocino, and Yolo Counties. Chaparral. 490 to 590 m January – March.	Not expected to occur; outside elevation range.
Alkali milk-vetch *Astragalus tener var. tener*	--/--/1B.2/Yes	Eastern San Francisco Bay region, the Delta, and western San Joaquin Valley south to the lower Salinas and San Benito valleys. Grassy alkaline flats and vernally moist meadows at elevations below 500 ft. March-June.	Not expected to occur; no suitable habitat and no CNDDB records within 3 miles of the site.
Heartscale *Atriplex cordulata var. cordulata*	--/--/1B.2/Yes	Central Valley and interior valleys of the Coast Range from Butte to Kern counties. Saline or alkaline sandy soils in grassland or saltbush scrub. March-October.	Not expected to occur; no suitable habitat.
Brittlescale *Atriplex depressa*	--/--/1B.2/Yes	Western and eastern Central Valley and adjacent foothills on west side of Central Valley. Alkaline clay soils in chenopod scrub, playa, valley and foothill grasslands; below 320 m. May-October.	Not expected to occur; no suitable habitat and no CNDDB records within 3 miles of the site.
Lesser saltscale *Atriplex minuscula*	--/--/1B.1/No	Scattered locations in the Central Valley in Alameda, Butte, Fresno, Kings, Kern, Madera, Merced, Stanislaus, Tulare counties. Alkaline, sandy soils. Chenopod scrub, playas, valley and foothill grassland. May-October.	Not expected to occur; no CNDDB occurrences in San Joaquin County.
Big-scale balsam root *Balsamorhiza macrolepis*	--/--/1B.2/No	Native to California. Scattered locations in Northern California, including the San Francisco Bay area, Coastal Ranges, Sierra foothills, and Sacramento Valley. Valley Grassland, Foothill Woodland. 350 to 1710 m. March – June.	Not expected to occur; outside elevation range.
Big tarplant *Blepharizonia plumosa*	--/--/1B.1/No	San Francisco Bay area with occurrences in Alameda, Contra Costa, San Joaquin, Stanislaus, and Solano Counties. Valley and foothill grassland; 30-505 m. July-Oct.	Low potential to occur; marginal habitat present along less disturbed field edges; CNDDB records within 1 mile of the site.
Mt. Diablo fairy-lantern *Calochortus pulchellus*	--/--/1B.2/No	San Francisco Bay area with occurrences in Alameda, Contra Costa, San Joaquin, Santa Clara, and Solano Counties. Chaparral, Valley Grassland, Foothill Woodland. 140 to 790 m. April-June.	Not expected to occur; outside elevation range.
Chaparral harebell *Campanula exigua*	--/--/1B.2/No	Native to California, Southeast San Francisco Bay area and Coastal Ranges from Contra Costa County southeast to Fresno County. Chaparral. 260 to 1370 m. May – June.	Not expected to occur; no suitable habitat and outside elevation range.

SPECIES	*STATUS (FED./CA/ CNPS/SJMSCP)*	*GEOGRAPHIC DISTRIBUTION, HABITAT, AND BLOOMING PERIOD*	*PRESENCE DETERMINATION*
Lemmon's jewelflower *Caulanthus lemmonii*	--/--/1B.2/No	Southeast San Francisco Bay area, south through the south Coast Ranges and adjacent San Joaquin Valley. Dry exposed slopes in grasslands and pinyon-juniper woodland; 80-1,220 m. March-May.	Not expected to occur; outside elevation range.
Congdon's tarplant *Centromadia parryi ssp. congdonii*	--/--/1B.1/	Inner Coast Ranges, east and south San Francisco Bay: Alameda, Contra Costa, Santa Clara, San Joaquin, Solano, Santa Cruz, Monterey County, and San Luis Obispo Counties. Occurs in wetlands and non-wetland valley grassland. May – October.	Low potential to occur; marginal habitat present along less disturbed field edges; No CNDDB records within 3 mile of the site.
Dwarf soaproot *Chlorogalum pomeridianum var. minus*	--/--/1B.2/No	Scattered along the foothills of the Coastal Ranges and Mendocino National Forest, with occurrences in Tehama, Glenn, Colusa, Napa, Lake, Santa Clara, San Joaquin, and Santa Clara Counties. Chaparral. Serpentine. 120-1220 m. May – August.	Not expected to occur; no suitable habitat and outside elevation range.
Hispid salty bird's-beak *Chloropyron molle ssp. hispidum*	--/--/1B.1/No	Scattered locations throughout the Central and Sacramento Valley. Alkali sink, Valley Grassland, wetland-riparian habitats. 0 to 30 m. June-September.	Not expected to occur; no suitable habitat and only one CNDDB record in the nine-quad region of the Project site over 15 miles from the site.
Palmate-bracted bird's-beak *Chloropyron palmatum*	E/E/1B.1/No	Scattered locations in Fresno and Madera counties in the San Joaquin Valley, San Joaquin, Yolo, and Colusa counties in the Sacramento Valley, and the Livermore Valley area of Alameda County. Saline-alkaline soils in seasonally-flooded lowland plains and basins at elevations of less than 500 feet. May-October.	Not expected to occur; no suitable habitat and no CNDDB records within 3 miles of the site.
Mt. Hamilton thistle *Cirsium fontinale var. campylon*	--/--/1B.2/No	Native to California, southeast San Francisco Bay area and Coastal Ranges with occurrences in Contra Costa, Alameda, San Joaquin, Stanislaus, Santa Clara, and San Benito Counties. Chaparral, Valley Grassland, Foothill Woodland, wetland-riparian habitats. 130 to 880 m. April – October.	Not expected to occur; outside elevation range.
Santa Clara red ribbons *Clarkia concinna ssp. automixa*	--/--/4.3/No	Native to California. San Francisco Bay area and Coastal Ranges with occurrences in Contra Costa, Alameda, Santa Clara, San Mateo, Santa Cruz, and San Joaquin Counties. Foothill Woodland habitat. 220 to 1240 m. May – June.	Not expected to occur; no suitable habitat and outside elevation range.
Livermore tarplant *Deinandra bacigalupii*	--/E/1B.1/No	Only three known occurrences within 90 acres of the Livermore Valley in Alameda County. Sensitive alkali meadows and grasslands. June – October.	Not expected to occur; no suitable habitat.
Hospital Canyon larkspur *Delphinium californicum ssp. interius*	--/--/1B.2/Yes	Inner Coast Ranges, east San Francisco Bay: Alameda, Contra Costa, Merced, San Benito, Santa Clara, San Joaquin, and San Luis Obispo Counties. Openings in chaparral, cismontane woodland on moist slopes and ravines; 230-1,100 m. April-June.	Not expected to occur; outside elevation range.
Recurved larkspur *Delphinium recurvatum*	--/--/1B.2/Yes	Central Valley from Colusa to Kern Counties. Alkaline soils in saltbush scrub, cismontane woodland, valley and foothill grassland; 3-750 m. Blooming Period March – May.	Low potential to occur; marginal habitat present on-site; No CNDDB records within 3 miles of the site.

SPECIES	*STATUS (FED./CA/ CNPS/SJMSCP)*	*GEOGRAPHIC DISTRIBUTION, HABITAT, AND BLOOMING PERIOD*	*PRESENCE DETERMINATION*
Tracy's eriastrum *Eriastrum tracyi*	--/R/3.2/No	Scattered occurrences in Colusa, Fresno, Glenn, Kern, Lake, Santa Clara, Shasta, Stanislaus, Tehama, Trinity, and Tulare Counties. Chaparral, Cismontane Woodland, Valley and Foothill Grassland. 315 to 1780 m. June – July.	Not expected to occur; no suitable habitat.
Spiny-sepaled button-celery *Eryngium spinosepalum*	--/--/1B.2/No	Contra Costa, Fresno, Kern, Madera, Merced, San Luis Obispo, Stanislaus, Tulare, and Tuolumne Counties. Valley and foothill grassland, Vernal pools. 80 to 975 meters. Apr – June.	Not expected to occur; no suitable habitat.
diamond-petaled California poppy *Eschscholzia rhombipetala*	--/--/1B.1/Yes	Interior foothills of south Coast Ranges from Contra Costa to Stanislaus Counties, Carrizo Plain in San Luis Obispo County. Grassland, chenopod scrub, on clay soils where grass cover is sparse enough to allow growth of low annuals; below 975 m. March-April.	Low potential to occur; marginal habitat present along less disturbed field edges; No CNDDB records within 3 miles of the site.
San Joaquin spearscale *Extriplex joaquinana*	--/--/1B.2/No	Delta region, central valley and central coast. Alkaline. Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland. April-October.	Low potential to occur; marginal habitat present along less disturbed field edges; No CNDDB records within 5 miles of the site.
Stinkbells *Fritillaria agrestis*	--/--/4.2/No	Occurrences throughout California, including Alameda, Contra Costa, Fresno, Kern, Mendocino, Merced, Monterey, Mariposa, Placer, Sacramento, Santa Barbara, San Benito, Santa Clara, Santa Cruz, San Luis Obispo, San Mateo, Stanislaus, Tuolumne, Ventura, and Yuba Counties. Chaparral, Cismontane woodland, Pinyon and juniper woodland, valley and foothill grassland. 10 to 1555 m. March – June.	Low potential to occur; marginal habitat present along less disturbed field edges; No CNDDB records within 10 miles of the site.
Talus fritillary *Fritillaria falcata*	--/--/1B.2/No	southeast San Francisco Bay area and Coastal Ranges with occurrences in Alameda, Monterey, San Benito, Santa Clara, Stanislaus Counties. Serpentinite, often talus. Chaparral, cismontane woodland, lower montane coniferous forest. 300 to 1525 m. March-May.	Not expected to occur; outside elevation range.
Diablo helianthella *Helianthella castanea*	--/--/1B.2/No	San Francisco Bay area: Alameda, Contra Costa, Marin, San Francisco, and San Mateo counties. Usually rocky, axonal soils. Often in partial shade. Broadleafed upland forest, chaparral, cismontane woodland coastal scrub, riparian woodland, valley and foothill grassland. 60 to 1300 m. March – June.	Not expected to occur; no suitable habitat and outside elevation range.
Brewer's western flax *Hesperolinon breweri*	--/--/1B.2/No	Eastern San Francisco Bay region (i.e., Alameda and Contra Costa Counties), as well as Napa and Solano Counties. Usually serpentinite. Chaparral, cismontane woodland, valley and foothill grassland. 30 to 945 m. May – July.	Not expected to occur; no suitable habitat.
Woolly rose-mallow *Hibiscus lasiocarpos var. occidentalis*	--/--/1B.2/Yes	Central Valley of California, as well as populations in eastern North America. All along the waterways of the Delta. June-September.	Not expected to occur; no suitable habitat.

SPECIES	*STATUS (FED./CA/ CNPS/SJMSCP)*	*GEOGRAPHIC DISTRIBUTION, HABITAT, AND BLOOMING PERIOD*	*PRESENCE DETERMINATION*
Loma Prieta hoita *Hoita strobilina*	--/--/1B.1/No	South and East San Francisco Bay region, including Alameda, Contra Costa, Santa Clara, and Santa Cruz Counties. Usually serpentinite, mesic. Chaparral, cismontane woodland, riparian woodland. 30 to 860 m. May – July (August-October).	Not expected to occur; no suitable habitat.
Legenere *Legenere limosa*	--/--/1B.1/Yes	Central Valley or primarily located in the lower Sacramento Valley, also from north Coast Ranges, San Joaquin Valley, and the Santa Cruz Mountains. Deep, seasonally wet habitats such as vernal pools, ditches, marsh edges, and riverbanks; below 150 m. April-June.	Not expected to occur; no suitable habitat.
Mt. Hamilton coreopsis *Coreopsis hamiltonii*	--/--/1B.2/Yes	Diablo Range, Mt. Hamilton Range in Alameda, Santa Clara, and Stanislaus Counties. Steep shale talus slopes in cismontane woodland; 550-1300 m. March-May.	Not expected to occur; outside elevation range.
Mason's lilaeopsis *Lilaeopsis masonii*	--/R/1B.1/Yes	Sacramento-San Joaquin River Delta and nearby shores of San Francisco Bay. Marshes and swamps, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. In brackish or freshwater. 0-10 m. Apr-Nov.	Not expected to occur; no suitable habitat.
Delta mudwort *Limosella australis*	--/--/2B.1/Yes	Found in Contra Costa County, Sacramento County, San Joaquin County, and Solano County. Riparian scrub, marshes and swamps. Usually on mud banks of the Delta in marshy or scrubby riparian associations; often with Lilaeopsis masonii. 0-5 m. May-Aug.	Not expected to occur; no suitable habitat.
Showy golden madia *Madia radiata*	--/--/1B.1/Yes	It is endemic to California, where it is known mostly from the Central Coast Ranges and adjacent edges of the San Francisco Bay Area and Central Valley. Valley and foothill grassland, cismontane woodland. Mostly on adobe clay in grassland or among shrubs. 75-1220 m. Mar-May.	Not expected to occur; outside elevation range.
Hall's bush-mallow *Malacothamnus hallii*	--/--/1B.2/No	Portions of the San Francisco Bay and Central Valley: Contra Costa, Santa Clara, San Mateo, Merced, and Stanislaus Counties. Chaparral, coastal scrub. 10 to 760 meters. (April) May – September (October).	Not expected to occur; no suitable habitat.
Shining navarretia *Navarretia nigelliformis ssp. radians*	--/--/1B.2/No	Central Valley, Central Coast Ranges, and adjacent edges of the San Francisco Bay Area. Sometimes clay, cismontane woodland, valley and foothill woodland, vernal pools. 65 to 1000 m. April – June.	Not expected to occur; outside elevation range.
Mt. Diablo phacelia *Phacelia phacelioides*	--/--/1B.2/No	Central Coastal Ranges, including Contra Costa, San Benito, Santa Clara, and Stanislaus Counties. Rocky, chaparral, cismontane woodland. 500 to 1370 m. April – May.	Not expected to occur; outside elevation range.
Hairless popcornflower *Plagiobothrys glaber*	--/--/1A/No	San Francisco Bay area, including Marin, Alameda, San Benito, and Santa Clara Counties. Alkaline meadows and seeps, coastal salt marshes and swamps. 15 to 180 m. March – May.	Not expected to occur; no suitable habitat.

SPECIES	*STATUS (FED./CA/ CNPS/SJMSCP)*	*GEOGRAPHIC DISTRIBUTION, HABITAT, AND BLOOMING PERIOD*	*PRESENCE DETERMINATION*
California alkali grass *Puccinellia simplex*	--/--/1B.2/No	Located throughout California, Oregon, and Utah. Occurrences in Alameda, Butte, Contra Costa, Fresno, Glenn, Kings, Kern, Lake, Los Angeles, Madera, Merced, Napa, San Bernardino, Santa Clara, Santa Cruz, San Luis Obispo, Solano, Stanislaus, Tulare, and Yolo Counties. Alkaline, vernally mesic; sinks, flats, and lake margins. Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. 2 – 930 m. March – May.	Not expected to occur; no suitable habitat.
Chaparral ragwort *Senecio aphanactis*	--/--/2B.2/No	Generally located along the coast with a few occurrences in the Central Valley. As far north as the San Francisco Bay Area and south into Baja California. Sometimes alkaline. Chaparral, cismontane woodland, coastal scrub. 15 to 800 m. January – April.	Not expected to occur; no suitable habitat.
Long-styled sand-spurrey *Spergularia macrotheca var. longistyla*	--/--/1B.2/No	Eastern and Northern San Francisco Bay region and western San Joaquin Valley. Alkaline. Meadows and seeps, marshes and swamps. 0 to 255 m. February – May.	Not expected to occur; no suitable habitat.
Saline clover *Trifolium hydrophilum*	--/--/1B.2/No	Eastern and Northern San Francisco Bay region, the Delta, western San Joaquin Valley, southern San Jose. Marshes and swamps, Valley and foothill grassland (mesic, alkaline), and Vernal pools. April-June.	Not expected to occur; no suitable habitat.
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	--/--/1B.1/Yes	Historically known from the northwest San Joaquin Valley and adjacent Coast Range foothills; currently known from Fresno, Monterey, and San Luis Obispo Counties. Alkaline hills in valley and foothill grassland; below 455 m. March-April.	Low potential to occur; marginal habitat present along less disturbed field edges; CNDDB records within 1 mile of the site.

NOTES: THE PRESENCE DETERMINATIONS WERE MADE BY PRINCIPAL BIOLOGIST, STEVE MCMURTRY (DE NOVO PLANNING GROUP, 2022) AND ARE BASED ON THE SITE SURVEY, REVIEW OF ON-SITE HABITAT CONDITIONS, AND THE CNDDB RESULTS.

CNPS = CALIFORNIA NATIVE PLANT SOCIETY

SJMSCP = SAN JOAQUIN MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN

STATUS EXPLANATIONS:

FEDERAL

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

STATE

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.

T = THREATENED UNDER THE FEDERAL CALIFORNIA ENDANGERED SPECIES ACT.

R = RARE UNDER THE CALIFORNIA ENDANGERED SPECIES ACT

CALIFORNIA NATIVE PLANT SOCIETY

1B = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE.

2 = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA, BUT MORE COMMON ELSEWHERE.

3 = A REVIEW LIST – PLANTS ABOUT WHICH MORE INFORMATION IS NEEDED.

4 = PLANTS OF LIMITED DISTRIBUTION – A WATCH LIST.

.1 = SERIOUSLY ENDANGERED IN CALIFORNIA (OVER 80% OF OCCURRENCES THREATENED-HIGH DEGREE AND IMMEDIACY OF THREAT).

.2 = FAIRLY ENDANGERED IN CALIFORNIA (20-80% OCCURRENCES THREATENED).

.3 = NOT VERY ENDANGERED IN CALIFORNIA (<20% OF OCCURRENCES THREATENED).

TABLE 3.4-2: SPECIAL-STATUS WILDLIFE AND FISH SPECIES WHICH MAY OCCUR IN PROJECT AREA

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*	*PRESENCE DETERMINATION*
Invertebrates				
Longhorn fairy shrimp *Branchinecta longiantenna*	E/--/Yes	Eastern margin of central Coast Ranges from Contra Costa County to San Luis Obispo County; disjunct population in Madera County	Small, clear pools in sandstone rock outcrops of clear to moderately turbid clay- or grass-bottomed pools.	No potential to occur. Habitat not present.
Vernal pool fairy shrimp *Branchinecta lynchi*	T/--/Yes	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County	Common in vernal pools; they are also found in sandstone rock outcrop pools.	No potential to occur. Habitat not present.
Midvalley fairy shrimp *Branchinecta mesovallensis*	--/--/Yes	Have been found in Sacramento, Solano, Yolo, Contra Costa, San Joaquin, Madera, Merced and Fresno counties. The increase of known locations lends additional support to the idea that the range and distribution of midvalley fairy shrimp is greater than the distribution of known occurrences.	Shallow ephemeral pools, vernal swales, and various artificial ephemeral wetland habitats.	No potential to occur. Habitat not present.
California linderiella *Linderiella occidentalis*	--/--/No	Ranges from near Redding in the north to as far south as Fresno County, mainly to the east of the Sacramento and San Joaquin Rivers	Natural, and artificial, seasonally ponded habitat types including: vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities	No potential to occur. Habitat not present.
Crotch bumble bee *Bombus crotchii*	--/C/No	Central California south to Baja California del Norte, Mexico, and includes coastal areas east to the edges of the deserts and the Central Valley	Open grassland and scrub	Low potential; No known CNDDB occurrences within 3-miles of Project site. Potential habitat limited to non-existent within Project area.
Western bumble bee *Bombus occidentalis*	--/C/No	Western North America, ranging from the tundra region in Alaska and Yukon south along the west coast to southern British Columbia to central California, Arizona and New Mexico and east into southern Saskatchewan and northwestern Great Plains	Open coniferous, deciduous and mixed-wood forests, wet and dry meadows, montane meadows and prairie grasslands, meadows bordering riparian zones, and along roadsides in taiga adjacent to wooded areas, urban parks, gardens and agricultural areas, subalpine habitats and more isolated natural areas	Low potential; No known CNDDB occurrences within 3-miles of Project site. Potential habitat limited to non-existent within Project area.

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*	*PRESENCE DETERMINATION*
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T/--/Yes	Stream side habitats below 3,000 feet throughout the Central Valley	Riparian and oak savanna habitats with elderberry shrubs; elderberries are the host plant.	No potential to occur. Habitat not present.
Amphibians				
California tiger salamander *Ambystoma californiense (A. tigrinum c.)*	T/SSC/Yes	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County.	Small ponds, lakes, or vernal pools in grass-lands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy.	Low potential; No known CNDDB occurrences within 3-miles of Project site. Appropriate breeding habitat not present. Estivation habitat limited by active agricultural activities in the vicinity and regular weed abatement on-site.
Foothill yellow-legged frog *Rana boylii*	--/C (SSC)/Yes	Occurs in the Klamath, Cascade, north Coast, south Coast, Transverse, and Sierra Nevada Ranges up to approximately 6,000 feet	Creeks or rivers in woodland, forest, mixed chaparral, and wet meadow habitats with rock and gravel substrate and low overhanging vegetation along the edge. Usually found near riffles with rocks and sunny banks nearby.	No potential to occur. Habitat not present.
California red-legged frog *Rana aurora draytoni*	T/SSC/Yes	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County	Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods.	No potential to occur. Habitat not present. Multiple CNDDB occurrences within 3-miles of the site along the base of the Mountains to the south and west, but separated by the Delta Mendota.
Western spadefoot *Spea hammondii*	T/SSC/Yes	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County	Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods.	No potential to occur. Habitat not present.
Birds				
Cooper's hawk *Accipiter cooperii*	--/SSC/Yes	Throughout California except high altitudes in the Sierra Nevada. Winters in the Central Valley, southeastern desert regions, and plains east of the Cascade Range	Nests in a wide variety of habitat types, from riparian woodlands and digger pine-oak woodlands through mixed conifer forests	Low potential; uncommon winter and rare summer visitor in project area. No known CNDDB occurrences within 3 miles of the site. Nesting opportunities

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*	*PRESENCE DETERMINATION*
				are absent. Highly mobile species could pass through.
Tricolored blackbird *Agelaius tricolor*	BCC/C (SSC)/Yes	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony	Moderate potential; potential nesting and foraging habitat present within region, but not within the Project site. CNDDB occurrences within 1.5 miles of the site. Nesting opportunities are absent. Highly mobile species could pass through.
Grasshopper sparrow *Ammodramus savannarum*	--/SSC/No	Foot hills and mountains throughout California including Mendocino, Trinity, and Tehama counties south, west of the Cascade–Sierra Nevada axis and southeastern deserts, to San Diego County. Also found in the lowlands such as the Central Valley.	Grassland, hayfields, prairies, especially those with fairly tall grass and weeds and a few scattered shrubs.	Moderate potential to occur. Suitable foraging habitat present. There are no CNDDB record within 5 miles of the site. Highly mobile species could pass through.
Golden eagle *Aquila chrysaetos*	BCC/FP/Yes	Foothills and mountains throughout California. Uncommon non-breeding visitor to lowlands such as the Central Valley	Nest on cliffs and escarpments or in tall trees overlooking open country. Forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals	Low potential; potential foraging habitat present within project area. There are no CNDDB record within 5 miles of the site. Nesting opportunities are absent. Highly mobile species could pass through.
Short-eared owl *Asio flammeus*	BCC/SSC/Yes	Permanent resident along the coast from Del Norte County to Monterey County although very rare in summer north of San Francisco Bay, in the Sierra Nevada north of Nevada County, in the plains east of the Cascades, and in Mono County; small, isolated populations	Freshwater and salt marshes, lowland meadows, and irrigated alfalfa fields; needs dense tules or tall grass for nesting and daytime roosts.	Low potential; potential foraging habitat present within project area. There are no CNDDB record within 5 miles of the site. Nesting opportunities are absent. Highly mobile species could pass through.
Burrowing owl *Athene cunicularia*	BCC/SSC/Yes	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows	High potential to occur. Suitable nesting and foraging habitat present on-site. Nearest CNDDB record on adjacent property to the east. No active nesting observed. Highly mobile species could pass through and could establish nests in future years.
Ferruginous hawk *Buteo regalis*	--/--/Yes	Does not nest in California; winter visitor along the coast from Sonoma County to San Diego County, east-ward to the Sierra Nevada foothills	Open terrain in plains and foothills where ground squirrels and other prey are available	Low potential to occur. Suitable foraging habitat present on-site. There are no CNDDB record within 5 miles of the site.

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*	*PRESENCE DETERMINATION*
		and south-eastern deserts, the Inyo-White Mountains, the plains east of the Cascade Range, and Siskiyou County		Nesting opportunities are absent. Highly mobile species could pass through.
Swainson's hawk *Buteo swainsoni*	BCC/T/Yes	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats. Forages in grasslands, irrigated pastures, and grain fields	High potential to occur. Suitable foraging habitat present on-site. Nearest CNDDB record 1.2-miles east of site. Nesting opportunities are absent. Highly mobile species could pass through.
Northern harrier *Circus hudsonius*	--/SSC/Yes	Occurs throughout lowland California. Has been recorded in fall at high elevations	Grasslands, meadows, marshes, and seasonal and agricultural wetlands	Low potential to occur. Marginal habitat present on-site. There are no CNDDB record within 5 miles of the site. No active nesting observed. Highly mobile species could pass through and could establish nests in future years.
White-tailed kite *Elanus leucurus*	--/--/Yes	Gulf Coast in Texas and Mexico and in the valley and coastal regions of central and southern California	Grasslands, marshes, row crops and alfalfa, where they hover while foraging for rodents and insects.	Low potential to occur. Suitable habitat present on-site. There are no CNDDB record within 5 miles of the site. Nesting opportunities are absent. Highly mobile species could pass through.
California horned lark *Eremophila alpestris actia*	--/--/Yes	Central Valley and coastal valleys and foothills.	Forage in large groups in open grasslands, nesting in hollows on the ground, and are also regularly found breeding on the Valley floor in suitable habitat	Low potential to occur. Suitable habitat present on-site. There are no CNDDB record within 5 miles of the site. No active nesting observed. Highly mobile species could pass through and could establish nests in future years.
Prairie falcon *Falco mexicanus*	--/--/Yes	Permanent resident in the south Coast, Transverse, Peninsular, and northern Cascade Ranges, the southeastern deserts, Inyo-White Mountains, foothills surrounding the Central Valley, and in the Sierra Nevada in Modoc, Lassen, and Plumas Counties. Winters in the Central Valley, along the coast from Santa Barbara County to San Diego County, and in Marin, Sonoma, Humboldt, Del Norte, and Inyo Counties	Nests on cliffs or escarpments, usually overlooking dry, open terrain or uplands	Low potential to occur. Marginal habitat present on-site. There are no CNDDB record within 5 miles of the site. Nesting opportunities are absent. Highly mobile species could pass through.

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*	*PRESENCE DETERMINATION*
Bald eagle *Haliaeetus leucocephalus*	D/E/No	Nests in Siskiyou, Modoc, Trinity, Shasta, Lassen, Plumas, Butte, Tehama, Lake, and Mendocino Counties and in the Lake Tahoe Basin. Reintroduced into central coast. Winter range includes the rest of California, except the southeastern deserts, very high altitudes in the Sierra Nevada, and east of the Sierra Nevada south of Mono County	In western North America, nests and roosts in coniferous forests within 1 mile of a lake, reservoir, stream, or the ocean	No potential to occur. Habitat not present. Nesting opportunities are absent. Highly mobile species could pass through.
Loggerhead shrike *Lanius ludovicianus*	BCC/SSC/Yes	Resident and winter visitor in lowlands and foothills throughout California. Rare on coastal slope north of Mendocino County, occurring only in winter	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches	Low potential to occur. Marginal habitat present on-site. There are no CNDDB record within 5 miles of the site. Nesting opportunities are absent. Highly mobile species could pass through.
song sparrow ("Modesto" population) *Melospiza melodia*	BCC/SSC/Yes	Restricted to California, where it is locally numerous in the Sacramento Valley, Sacramento–San Joaquin River Delta, and northern San Joaquin Valley. Exact boundaries of range uncertain.	Found in emergent freshwater marshes dominated by tules (*Scirpus* spp.) and cattails (*Typha* spp.) as well as riparian willow (*Salix* spp.) thickets. They also nest in riparian forests of Valley Oak (*Quercus lobata*) with a sufficient understory of blackberry (*Rubus* spp.), along vegetated irrigation canals and levees, and in recently planted Valley Oak restoration sites.	Low potential to occur. Marginal habitat present on-site. There are no CNDDB record within 5 miles of the site. Nesting opportunities are absent. Highly mobile species could pass through.
least Bell's vireo *Vireo bellii pusillus*	E/E/No	Central Valley of California and other low-elevation river valleys.	Dense brush, mesquite, willow-cottonwood forest, streamside thickets, and scrub oak.	No potential to occur. Habitat not present. Nesting opportunities are absent. Highly mobile species could pass through.
FISH				
Delta smelt *Hypomesus transpacificus*	T/T/Yes	Primarily in the Sacramento–San Joaquin Estuary but has been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay.	Occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2–7 parts per thousand.	No potential to occur. Habitat not present.
Central Valley steelhead	T/--/No	Sacramento River and tributary Central Valley rivers.	Occurs in well-oxygenated, cool, riverine habitat with water temperatures from	No potential to occur. Habitat not present.

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*	*PRESENCE DETERMINATION*
Oncorhynchus mykiss			7.8°C to 18°C. Habitat types are riffles, runs, and pools.	
Longfin smelt *Spirinchus thaleichthys*	--/SSC/Yes	Occurs in estuaries along the California coast. Adults concentrated in Suisun, San Pablo, and North San Francisco Bays.	Prior to spawning, these fish aggregate in deepwater habitats available in the northern Delta, including, primarily, the channel habitats of Suisun Bay and the Sacramento River. Spawning occurs in fresh water on the San Joaquin River below Medford Island and on the Sacramento River below Rio Vista.	No potential to occur. Habitat not present.
Mammals				
Pallid bat *Antrozous pallidus*	--/SSC/No	Occurs throughout California except the high Sierra from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California. Relies heavily on trees for roosts	Low potential to occur. No roosting habitat present on-site. There are no CNDDB record within approximately 15 miles of the site.
Pale big-eared bat *Corynorhinus townsendii*	--/SSC/Yes	Coastal regions from Del Norte County south to Santa Barbara County	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings. Very sensitive to disturbances and may abandon a roost after one onsite visit	Low to moderate potential to occur. Potential low quality roosting habitat present on-site in the outbuildings. Disturbances and human activity on-site reduce the quality of potential habitat. There are no CNDDB record within 5 miles of the site.
Berkeley kangaroo rat *Dipodomys heermanni berkeleyensis*	--/--/Yes	Occurs in Alameda and Contra Costa Counties.	Open grassy hilltops & open spaces in chaparral & blue oak/digger pine woodlands. Needs fine, deep well-drained soil for burrowing	No potential to occur. Appropriate habitat not present in the Project area. Nearest CNDDB record over 16 miles from the site.
Western mastiff bat *Eumops perotis californicus*	--/SSC/Yes	Occurs along the western Sierra primarily at low to mid elevations and widely distributed throughout the southern coast ranges. Recent surveys have detected the species north to the Oregon border	Found in a wide variety of habitats from desert scrub to montane conifer. Roosts and breeds in deep, narrow rock crevices, but may also use crevices in trees, buildings, and tunnels	Low to moderate potential to occur. Potential low quality roosting habitat present on-site in the outbuildings. Disturbances and human activity on-site reduce the quality of potential habitat.

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*	*PRESENCE DETERMINATION*
				There are no CNDDB record within 5 miles of the site.
hoary bat *Lasiurus cinereus*	--/--/No	The hoary bat is the most widespread North American bat. May be found at any location in California, although distribution patchy in southeastern deserts. This common, solitary species winters along the coast and in southern California, breeding inland and north of the winter range.	Can be found in foothills, deserts, mountains, lowland, and coastal valleys.	Low potential to occur. No roosting habitat present on-site. There are no CNDDB record within 5 miles of the site.
San Joaquin Pocket Mouse *Perognathus inornatus*	--/--/Yes	Occurs throughout the San Joaquin Valley and in the Salinas Valley	Favors grasslands and scrub habitats with fine textured soils	Moderate potential to occur. Agricultural land use likely precludes this species from maintaining long-term populations on the site. During fallow periods, the habitat improves for this species. One CNDDB record located approximately 4 miles southeast of the site.
Riparian brush rabbit *Sylvilagus bachmani riparius*	E/E/Yes	Limited to San Joaquin County at Caswell State Park near the confluence of the Stanislaus and San Joaquin Rivers and Paradise Cut area on Union Pacific right-of-way lands	Native valley riparian habitats with large clumps of dense shrubs, low-growing vines, and some tall shrubs and trees	No potential to occur. Habitat not present.
American badger *Taxidea taxus*	--/SSC/Yes	In California, badgers occur throughout the state except in humid coastal forests of northwestern California in Del Norte and Humboldt Counties	Badgers occur in a wide variety of open, arid habitats but are most commonly associated with grasslands, savannas, mountain meadows, and open areas of desert scrub; the principal habitat requirements for the species appear to be sufficient food (burrowing rodents), friable soils, and relatively open, uncultivated ground	Moderate potential to occur. Suitable foraging habitat on-site; and highly mobile species. Agricultural land use likely precludes this species from maintaining burrows on the site. There are two CNDDB within 5 miles of the site.
San Joaquin kit fox *Vulpes macrotis mutica*	E/T/Yes	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub, grassland, oak, savanna, and freshwater scrub	Moderate potential to occur. No dens present, but highly mobile species that could forage on the site. Agricultural land use likely precludes this species from maintaining dens on the site.

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*	*PRESENCE DETERMINATION*
				Multiple CNDDB occurrences within 3-miles of the site.
Reptiles				
Northern California legless lizard *Anniella pulchra*	--/SSC/No	This lizard is common in suitable habitats in the Coast Ranges from Contra Costa County south to the Mexican border, but only has a spotty occurrence throughout the rest of its range, which includes the San Joaquin Valley to the west slope of the southern Sierra, the Tehachapi Mountains west of the desert and in the mountains of southern California.	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	Low potential to occur. Limited, to no habitat present in the Project area. There are no CNDDB record within 5 miles of the site.
California glossy snake *Arizona elegans occidentalis*	--/SSC/No	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California.	Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils	Moderate potential to occur. Marginal habitat present in the Project area. Multiple CNDDB records within 5 miles of the site.
Western pond turtle Emys marmorata	--/SSC/Yes	Occurs from the Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through the Sacramento Valley, and on the western slope of Sierra Nevada	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests	Low potential to occur. Limited aquatic habitat present in the Project area mostly associated with the Delta Mendota Canal. There are no CNDDB record within 5 miles of the site.
San Joaquin coachwhip *Masticophis flagellum ruddocki*	--/SSC/Yes	From Colusa County in the Sacramento Valley southward to the grapevine in the San Joaquin Valley and westward into the inner coast ranges. An isolated population occurs at Sutter Buttes. Known elevational range from 20 to 900 meters	Occurs in open, dry, vegetative associations with little or no tree cover. It occurs in valley grassland and saltbush scrub associations. Often occurs in association with mammal burrows.	Moderate potential to occur. Marginal habitat present in the Project area. One CNDDB records/occurrences within 3 miles of the site.
Alameda whipsnake *Masticophis lateralis euryxanthus*	T/T/No	Found in the inner coast range of California – most of them in Contra Costa and Alameda counties. Some have been found in San Joaquin and Santa Clara counties.	Found in chaparral – northern coastal sage scrub and coastal sage. Rock outcrops, rock crevices and mammal burrows are important features of their habitat.	Low potential to occur. Appropriate habitat not present in the Project area. There are no CNDDB record within 5 miles of the site.
Coast horned lizard *Phrynosoma blainvillii*	--/SSC/No	Sacramento Valley, including foothills, south to southern California; Coast Ranges south of Sonoma County; below 4,000 feet in northern California	Grasslands, brushlands, woodlands, and open coniferous forest with sandy or loose soil; requires abundant ant colonies for foraging.	Moderate potential to occur. Habitat present in the Project area. Three CNDDB records within 5 miles of the site. Not an uncommon species in the region even in the absence of records.

NOTES: THE PRESENCE DETERMINATIONS WERE MADE BY PRINCIPAL BIOLOGIST, STEVE MCMURTRY (DE NOVO PLANNING GROUP, 2022) AND ARE BASED ON THE SITE SURVEY, REVIEW OF ON-SITE HABITAT CONDITIONS, AND THE CNDDB RESULTS.

STATUS EXPLANATIONS:

FEDERAL

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE FEDERAL ENDANGERED SPECIES ACT.
D = DELISTED FROM FEDERAL LISTING STATUS.
BCC = BIRD OF CONSERVATION CONCERN

STATE

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE STATE ENDANGERED SPECIES ACT.
FP = FULLY PROTECTED UNDER THE CALIFORNIA FISH AND GAME CODE.
SSC = SPECIES OF SPECIAL CONCERN IN CALIFORNIA.

3.4.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the natural resources of the state and nation including the California Department of Fish and Wildlife (CDFW), USFWS, U.S. Army Corps of Engineers (USACE), and the Central Valley Regional Water Quality Control Board (CVRWQCB). These agencies often respond to declines in the quantity of a particular habitat or plant or animal species by developing protective measures for those species or habitat type. The following is an overview of the federal, state and local regulations that are applicable to the proposed Project.

FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA), passed in 1973, defines an endangered species as any species or subspecies that is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as any species or subspecies that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Once a species is listed it is fully protected from a "take" unless a take permit is issued by the USFWS. A take is defined as the harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct, including modification of its habitat (16 USC 1532, 50 CFR 17.3). Proposed endangered or threatened species are those species for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Migratory Bird Treaty Act

To kill, posses, or trade a migratory bird, bird part, nest, or egg is a violation of the Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., § 703, Supp. I, 1989), unless it is in accordance with the regulations that have been set forth by the Secretary of the Interior.

Federal Bald and Golden Eagle Protection Act

The Federal Bald and Golden Eagle Protection Act provide regulations to protect bald and golden eagles as well as their nests and eggs from willful damage or injury.

Clean Water Act (CWA) – Section 404

Section 404 of the CWA regulates all discharges of dredged or fill material into waters of the U.S. Discharges of fill material includes the placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. § 328.2(f)].

Waters of the U.S. include lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as "those areas that are inundated or

saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. § 328.3(b)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the USACE as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. § 328.3(e)].

The USACE is the agency responsible for administering the permit process for activities that affect waters of the U.S. Executive Order 11990 is a federal implementation policy, which is intended to result in no net loss of wetlands.

Clean Water Act – Section 401

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant who is seeking a 404 permit to first obtain a water quality certification from the CVRWQCB. To obtain the water quality certification, the CVRWQCB must indicate that the proposed fill would be consistent with the standards set forth by the state.

Rivers and Harbors Act of 1899

The Rivers and Harbors Act prohibits the obstruction or alteration of any navigable water of the United States. The Act requires authorization from the USACE for any excavation or deposition of materials into these waters or for any work that could affect the course, location, condition, or capacity of rivers or harbors.

STATE

Fish and Game Code § 2050-2097 – California Endangered Species Act

The California Endangered Species Act (CESA) protects certain plant and animal species when they are of special ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats.

CESA was expanded upon the original Native Plant Protection Act and enhanced legal protection for plants. To be consistent with Federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the Act as threatened species, but did not do so for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Under State law, plant and animal species may be formally designated by official listing by the California Fish and Game Commission.

Fish and Game Code § 1900-1913 – California Native Plant Protection Act

In 1977 the State Legislature passed the Native Plant Protection Act (NPPA) in recognition of rare and endangered plants of the state. The intent of the law was to preserve, protect, and enhance endangered plants. The NPPA gave the California Fish and Game Commission the power to designate

native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants. The NPPA includes provisions that prohibit the taking of plants designated as "rare" from the wild, and a salvage mandate for landowners, which requires notification of the CDFW 10 days in advance of approving a building site.

Fish and Game Code §§ 3503, 3503.5, 3800 – Predatory Birds

Under the California Fish and Game Code, all predatory birds in the order Falconiformes or Strigiformes in California, generally called “raptors,” are protected. The law indicates that it is unlawful to take, posses, or destroy the nest or eggs of any such bird unless it is in accordance with the code. Any activity that would cause a nest to be abandoned or cause a reduction or loss in a reproductive effort is considered a take. This generally includes construction activities.

Fish and Game Code §§ 1601-1603 – Streambed Alteration

Under the California Fish and Game Code, CDFW has jurisdiction over any proposed activities that would divert or obstruct the natural flow or change the bed, channel, or bank of any lake or stream. Private landowners or project proponents must obtain a “Streambed Alteration Agreement” from CDFW prior to any alteration of a lake bed, stream channel, or their banks. Through this agreement, the CDFW may impose conditions to limit and fully mitigate impacts on fish and wildlife resources. These agreements are usually initiated through the local CDFW warden and will specify timing and construction conditions, including any mitigation necessary to protect fish and wildlife from impacts of the work.

Public Resources Code § 21000 – California Environmental Quality Act

CEQA identifies that a species that is not listed on the federal or state endangered species list may be considered rare or endangered if the species meets certain criteria. (CEQA Guidelines § 15380) Species that are not listed under FESA or CESA, but are otherwise eligible for listing (i.e. candidate, or proposed) may be protected by the local government until the opportunity to list the species arises for the responsible agency.

Species that may be considered for review are included on a list of “Species of Special Concern,” developed by the CDFW. Additionally, the California Native Plant Society (CNPS) maintains a list of plant species native to California that have low populations, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. List 1A contains plants that are believed to be extinct. List 1B contains plants that are rare, threatened, or endangered in California and elsewhere. List 2 contains plants that are rare, threatened, or endangered in California, but more numerous elsewhere.

California Wetlands Conservation Policy

In August 1993, the California Governor announced the "California Wetlands Conservation Policy.” The goals of the policy are to establish a framework and strategy that will:

- Ensure no overall net loss and to achieve a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property.
- Reduce procedural complexity in the administration of State and federal wetland conservation programs.
- Encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetland conservation and restoration.

The Governor also signed Executive Order W-59-93, which incorporates the goals and objectives contained in the new policy and directs the Resources Agency to establish an Interagency Task Force to direct and coordinate administration and implementation of the policy.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act provides long-term protection of species and habitats through regional, multi-species planning before the special measures of the CESA become necessary.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act authorizes the SWRCB to regulate state water quality and protect beneficial uses.

Water Quality Control Plan for the Sacramento-San Joaquin River Basins

The Water Quality Control Plan for the Sacramento-San Joaquin River Basins (Basin Plan), adopted by the CVRWQCB in 1998, identifies the beneficial uses of water bodies and provides water quality objectives and standards for waters of the Sacramento River and SJR basins, including the Delta.

State and federal laws mandate the protection of designated "beneficial uses" of water bodies. State law defines beneficial uses as "domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves" (Water Code Section 13050[f]). Additional protected beneficial uses of the SJR include groundwater recharge and fresh water replenishment.

LOCAL

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

A Habitat Conservation Plan (HCP) is a federal planning document that is prepared pursuant to Section 10 of the FESA. An approved HCP within a defined plan area allows for the incidental take of species and habitat that are otherwise protected under FESA during development activities.

A Natural Community Conservation Plan (NCCP) is a state planning document administered by CDFW. An approved NCCP within a defined plan area allows for the incidental take of species and habitat that are otherwise protected under CESA during growth and development activities.

BACKGROUND

The key purpose of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), is to provide a strategy for balancing the need to conserve Open Space and the need to Convert Open Space to non-Open Space uses while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the Federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA); providing and maintaining multiple-use Open Spaces which contribute to the quality of life of the residents of San Joaquin County; and accommodating a growing population while minimizing costs to Project Proponents and society at large.

San Joaquin County's past and future (2001-2051) growth has affected and will continue to affect 97 special status plant, fish and wildlife species in 52 vegetative communities scattered throughout San Joaquin County's 1,400+ square miles and 900,000+ acres, which include 43% of the Sacramento-San Joaquin Delta's Primary Zone. The SJMSCP, in accordance with ESA Section 10(a)(1)(B) and CESA Section 2081(b) Incidental Take Permits, provides compensation for the Conversion of Open Space to non-Open Space uses which affect the plant, fish and wildlife species covered by the Plan, hereinafter referred to as "SJMSCP Covered Species". In addition, the SJMSCP provides some compensation to offset the impacts of open space land conversions on non-wildlife related resources such as recreation, agriculture, scenic values and other beneficial Open Space uses.

The SJMSCP compensates for Conversions of Open Space for the following activities: urban development, mining, expansion of existing urban boundaries, non-agricultural activities occurring outside of urban boundaries, levee maintenance undertaken by the San Joaquin Area Flood Control Agency, transportation projects, school expansions, non-federal flood control projects, new parks and trails, maintenance of existing facilities for non-federal irrigation district projects, utility installation, maintenance activities, managing Preserves, and similar public agency projects. These activities will be undertaken by both public and private individuals and agencies throughout San Joaquin County and within the County's incorporated cities of Escalon, Manteca, Lodi, Manteca, Ripon, Stockton and Tracy. Public agencies including Caltrans (for transportation projects), and the San Joaquin Council of Governments (for transportation projects) also will undertake activities which will be covered by the SJMSCP. In addition, 5,340 acres is allocated for anticipated projects (e.g., annexations, general plan amendments)

The 97 SJMSCP Covered Species include 25 state and/or federally listed species. The SJMSCP Covered Species include 27 plants (6 listed), 4 fish (2 listed), 4 amphibians (1 listed), 4 reptiles (1 listed), 33 birds (7 listed), 15 mammals (3 listed) and 10 invertebrates (5 listed).

IMPLEMENTATION

The SJMSCP is administered by a Joint Powers Authority (the San Joaquin County Joint Powers Authority) consisting of members of the SJCOG, the CDFW, and the USFWS. Development project applicants are given the option of participating in the SJMSCP as a way to streamline compliance

with required local, State and federal laws regarding biological resources, and typically avoid having to approach each agency independently. According to the SJMSCP, adoption and implementation by local planning jurisdictions provides full compensation and mitigation for impacts to plants, fish and wildlife. Adoption and implementation of the SJMSCP also secures compliance pursuant to the state and federal laws such as CEQA, the National Environmental Policy Act (NEPA), the Planning and Zoning Law, the State Subdivision Map Act, the Porter-Cologne Act and the Cortese-Knox Act in regard to species covered under the SJMSCP.

Applicants pay mitigation fees on a per-acre basis, as established by the Joint Powers Authority according to the measures needed to mitigate impacts to the various habitat and biological resources. Different types of land require different levels of mitigation; i.e., one category requires that one acre of a similar land type be preserved for each acre developed, while another type requires that two acres be preserved for each acre developed. The entire County is mapped according to these categories so that land owners, project proponents and project reviewers are easily aware of the applicable SJMSCP fees for the proposed development.

The appropriate fees are collected by the City and remitted to SJCOG for administration. SJCOG uses the funds to preserve open space land of comparable types throughout the County, often coordinating with other private or public land trusts to purchase conservation easements or buy land outright for preservation. Development occurring on land that has been classified under the SJMSCP as "no-pay" would not be required to pay a fee. This category usually refers to already urbanized land and infill development areas. Although the fees are automatically adjusted on an annual basis, based on the construction cost index, they often cannot keep pace with the rapidly rising land prices in the Central Valley.

City of Tracy General Plan

The Tracy General Plan includes a number of policies relevant to biological resources and the conservation of sensitive environmental resources.

POLICIES: OPEN SPACE AND CONSERVATION ELEMENT

- OSC-1.1-P-1. New development shall meet all federal, State and regional regulations for habitat and species protection.
- OSC-1.1-P-2. The City shall continue to participate with the SJCOG and other agencies to implement and enforce the SJMSCP.
- OSC-1.1-P-3. New development should incorporate native, drought tolerant vegetation into landscape plans and reduce the use of invasive, non-native plant species.
- OSC-5.1-P-2. The City shall encourage the establishment and maintenance of trees on public and private property to create an urban forest.

City of Tracy Municipal Code

Chapter 7.08 of the City of Tracy Municipal Code pertains to alteration or removal of street trees. Section 7.08.050 of the Municipal Code prohibits cutting, pruning, removing, injuring, or interference with any tree, shrub, or plant upon or in any street tree area or other public place in

the City without prior approval from the Public Work director. The City is authorized to grant such permission at their discretion and where necessary, as outlined in Section 7.08.040.

3.4.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on biological resources if it will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

IMPACTS AND MITIGATION

Impact 3.4-1: The proposed Project implementation may result in direct or indirect effects on special-status invertebrate species. (Less than Significant with Mitigation)

Special-status invertebrates that occur within the nine-quad region (which includes the following USGS quadrangles: Byron Hot Springs, Clifton Court Forebay, Union Island, Altamont, Midway, Tracy, Mendenhall Springs, Cedar Mountain, and Lone Tree Creek) for the Project site include: Longhorn fairy shrimp (*Branchinecta longiantenna*), Vernal pool fairy shrimp (*Branchinecta lynchi*), Midvalley fairy shrimp (*Branchinecta mesovallensis*), California linderiella (*Linderiella occidentalis*), Crotch bumble bee (*Bombus crotchii*), Western bumble bee (*Bombus occidentalis*), and Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). As noted in Table 3.4-2, Longhorn fairy shrimp (*Branchinecta longiantenna*), Vernal pool fairy shrimp (*Branchinecta lynchi*), Midvalley fairy shrimp (*Branchinecta mesovallensis*), and Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) are covered species under the SJMSCP.

Vernal Pool Branchiopods: The record search lists several occurrences of the federally endangered longhorn fairy shrimp (*Branchinecta longiantenna*), the threatened vernal pool fairy shrimp (*Branchinecta lynchi*), and the non-listed California linderiella (*Linderiella occidentalis*) and midvalley fairy shrimp (*Branchinecta mesovallensis*) as occurring within the nine-quad region for the project site. These species exclusively inhabit vernal pools or other seasonally ponded wetlands that sustain inundation during the winter before drying in the late spring. The Project site does not provide suitable habitat for this species.

Valley Elderberry Longhorn Beetle: The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is a federally threatened insect that is dependent upon the elderberry plant (*Sambucus* sp.) as a primary host species. Elderberry shrubs are a common component of riparian areas throughout the Sacramento Valley region. Given that no riparian habitat exists on-site and no elderberry plants were observed during the field survey, valley elderberry longhorn beetle is not anticipated to be directly affected by any individual phase or component of the proposed Project

Other Insects: There are two other insects that are not formally listed, special-status species, but are included in the CNDDB search results. These include Crotch bumble bee (*Bombus crotchii*) and western bumble bee (*Bombus occidentalis*). While these species are documented within the nine-quad region for the Project site, they are not documented on the Project site. The habitat present on the project site is not ideal natural habitat for these species and none are believed to be present.

Conclusion: The Project site is located within the jurisdiction of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan ("Plan" or "SJMSCP") and is located within the Central/Southwest Transition Zone of the SJMSCP. Within the Southwest Transition Zone, the Project site is located in Category C/Pay Zone B. The Category C/Pay Zone B includes parcels containing habitat types classified as Agricultural Habitat Lands which are not otherwise exempt. Applicants pay mitigation fees on a per-acre basis, as established by the JPA, according to the measures needed to mitigate impacts to the various habitat and biological resources. The project applicant would be required to seek coverage under the SJMSCP and would be subject to the Category C/Pay Zone B fees in order to mitigate for any habitat impacts. Coverage involves compensation for habitat impacts on covered species through payment of development fees for conversion of lands that may provide habitat for covered special status species. These fees are used to preserve and/or create habitat in preserves to be managed in perpetuity. In addition, coverage includes incidental take avoidance and minimization measures for species that could be affected as a result of the proposed project. The valley elderberry longhorn beetle, longhorn fairy shrimp, vernal pool fairy shrimp, and midvalley fairy shrimp are covered species under the SJMCP.

The southern portion of the Development Area is currently developed with three single-family residences and six ancillary structures. The remainder of the Development Area consists primarily of ruderal grasses which are regularly disced. The Project site has been historically used for agricultural uses. There are seven documented special-status invertebrates located within the nine-quad region for the Project site. According to the CNDDB records search, there are no documented or observed special-status invertebrate species on the Project site. Additionally, appropriate habitat for these special-status invertebrates were not observed within the Project site or offsite

improvement corridors during the field survey and none are expected to be affected by the proposed Project. While there are no special status invertebrate species that are anticipated to be affected by the proposed project, participation in the SJMSCP will provide the coverage for the incidental take of a species if it were to occur. Mitigation Measure 3.4-1 will ensure coverage under the SJMSCP. Therefore, the proposed project would have a ***less than significant*** impact on special status invertebrate species.

MITIGATION MEASURE(S)

Mitigation Measure 3.4-1*: Prior to commencement of any grading activities, the Project proponent shall obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species. Coverage involves compensation for habitat impacts on covered species through implementation of incidental take and minimization Measures (ITMMs) and payment of fees for conversion of lands that may provide habitat for covered special status species. These fees are used to preserve and/or create habitat in preserves to be managed in perpetuity. Obtaining coverage for a Project includes incidental take authorization (permits) under the Endangered Species Act Section 10(a), California Fish and Game Code Section 2081, and the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species.*

Impact 3.4-2: The proposed Project has the potential to have direct or indirect effects on special-status amphibian and reptile species. (Less than Significant with Mitigation)

Special-status amphibians and reptiles that occur within the nine-quad region for the Project site according to the CNDDB include: California tiger salamander (*Ambystoma californiense*), Foothill yellow-legged frog (*Rana boylii*), California red-legged frog (*Rana aurora draytoni*), Western spadefoot (*Spea hammondii*), Northern California legless lizard (*Anniella pulchra)*, California glossy snake (*Arizona elegans occidentalis*), Western pond turtle (*Emys marmorata*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), Alameda whipsnake (*Masticophis ladteralis euryxanthus*), and Coast horned lizard (*Phrynosoma blainvilii*). As noted in Table 3.4-2, California tiger salamander (*Ambystoma californiense*), Foothill yellow-legged frog (*Rana boylii*), California red-legged frog (*Rana aurora draytoni*), Western spadefoot (*Spea hammondii*), Western pond turtle (*Emys marmorata*), and San Joaquin coachwhip (*Masticophis flagellum ruddocki*) are covered species under the SJMSCP.

California Tiger Salamander: The federally and State-listed Threatened California tiger salamander (CTS) is a large terrestrial salamander. It occurs in central California from the Sacramento Valley to the south-central San Joaquin Valley, and in the surrounding foothills of both the Coast Ranges and the Sierra Nevada Mountains. CTS are also recorded from the San Francisco Bay region, Sonoma County, the Monterey Bay region, and the valleys and foothills of San Luis Obispo and Santa Barbara counties.

CTS breed in temporary wetland pools, such as vernal pools, and other seasonal wetland bodies where ponded water is present for a minimum of three to four months, extending into the early spring. Such ponds and temporary wetlands provide necessary breeding and larval-stage habitat for

the species. Adults spend most of the year in aestivation, underground in the burrows of small mammals, such as the California ground squirrel and/or Botta's pocket gopher, or within other suitable subterranean retreats. They emerge at night during winter rain events for brief periods to breed (Trenham et al. 2001). Aquatic juveniles (larvae) are mostly herbivorous (Stebbins 1985). CTS normally begin to reproduce after three to five years.

There are no CNDDB records or mapped occurrences of CTS within 3 miles of the Project site. According to the CNDDB, the nearest occurrence of CTS is approximately 4.1 miles northwest of the Project site along the Altamont Pass Road from Greenville Road east to Midway Road in ditches and creeks adjacent to the roadways. In 2011 and 2012, CTS larvae and eggs were found. It is anticipated that CTS adults will disperse at night up to 1.3 miles to refuge sites. Because the Project site is over four miles away, it is unlikely that the CTS observed in this area would travel to the Project site. There are no other known CTS breeding sites in the vicinity.

While there is a low potential for CTS to occur within the Project site, the Project applicant will be required to obtain coverage under the SJMSCP. The CTS is a covered species under the SJMCP; therefore, it is anticipated that any impacts to CTS would be ***less than significant*** through compliance with Mitigation Measure 3.4-1, which requires the Project proponent to seek coverage under the SJMSCP to mitigate for habitat impacts to covered special status species.

Foothill Yellow Legged Frog: The Foothill yellow-legged frog (FYLF) is a State candidate for listing as Threatened. They occur in partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. They need at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis. Adults often bask on exposed rock surfaces near streams. When disturbed, they dive into the water and take refuge under submerged rocks or sediments. During periods of inactivity, especially during cold weather, individuals seek cover under rocks in the streams or on shore within a few meters of water. Egg clusters are attached to gravel or rocks in moving water near stream margins. Unlike most other ranid frogs in California, this species is rarely encountered (even on rainy nights) far from permanent water. Tadpoles require water for at least three or four months while completing their aquatic development. Significant seasonal movements or migrations from breeding areas have not been reported. Normal home ranges are probably less than 10 m (33 ft) in the longest dimension. Occasional long-distance movements (up to 50 m) (165 ft) may occur during periods with high water conditions. Breeding and egg laying usually await the end of spring flooding and may commence any time from mid-March to May, depending on local water conditions. The breeding season at any locality is usually about two weeks for most populations. Females deposit eggs in clusters of 200 to 300 (range 100 to 1000). They hatch in about five days. Tadpoles reach maximum sizes of 50 to 55 mm (2.2 in) and transform in three to four months.

FYLF is known to occur in aquatic habitats, such as creeks or rivers in woodland, forest, mixed chaparral, and wet meadow habitats with rock and gravel substrate and low overhanging vegetation along the edge. They are usually found near riffles with rocks and sunny banks nearby. The FYLF is not documented in the immediate vicinity of the Project site. Additionally, the Project site does not provide the necessary habitat for FYLF. The FYLF is a covered species under the SJMSCP; therefore,

it is anticipated that any impacts to FYLF would be ***less than significant*** through compliance with Mitigation Measure 3.4-1, which requires the Project proponent to obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species.

California Red-Legged Frog: The federally-listed Threatened and California Species of Special Concern California red-legged frog (CRLF) occurs in lowlands and foothills primarily in perennial or ephemeral ponds, pools, and streams where water remains long enough (14 to 28 weeks) for breeding and metamorphosis of tadpoles. Specific breeding sites include streams, creeks, ponds, marshes, sag ponds, deep pools, backwater areas, dune ponds, lagoons, and estuaries. Habitats with the highest densities of CRLF often contain dense emergent or shoreline riparian vegetation closely associated with fairly shallow (< 0.5 meter) to deep (> 0.5 meter), still or slow-moving water (USFWS 2002). CRLF may disperse from their aquatic breeding habitats to upland habitats during the dry season. They prefer upland habitats that provide moisture to prevent desiccation and protection from predators including downed logs, woody vegetation, boulders, moist leaf litter, or other refugia during the dry season. When there is sufficient water at their breeding location, they may remain in aquatic habitats year-round instead of moving to adjacent uplands. During wet seasons, frogs can move long distances between habitats, traversing upland areas or ephemeral drainages. Dispersal distances are typically less than 0.5 km (0.3 mile), with a few individuals moving 2.0 to 3.6 kilometers (1.2 to 2.2 miles). Seeps and springs in open grasslands can function as foraging habitat or refugia for wandering frogs (Jennings and Hayes 1994).

The CNDDB notes three occurrences for CRLF within 1.5-miles of the Project site. The first occurrence was in March 2001 where one adult female CRLF was collected at night from Patterson Road, located approximately 1.45 miles southwest of the project site near the intersection of Patterson Road and Via Nicole Road. The second occurrence was approximately 1.67 miles northwest of the Project site along the California Aqueduct, where sediment was removed from a concrete apron structure creating a breeding habitat where none had previously existed. In July 2004, two CRLF tadpoles were captured for ID purposes while many more were observed, and by October 2004, 39 juvenile CRLFs were observed. The third occurrence was approximately 1.5 miles southwest of the Project site in a mountainous area south of the Union Pacific Railroad and approximately one mile north of the Lawrence Radiation Laboratory, where 50 adults and many tadpoles were observed in a small cattle watering pond in 1992.

The farmland fringe areas, as well as the fallow conditions in the Project site and vicinity area provide some very limited upland habitat. The Delta Mendota Canal along the southern boundary of the Project site would provide marginal habitat for CRLF, however, this aquatic feature has large populations of predatory fish species that inhibit CRLF populations. Because the closest documented occurrences within the Project vicinity are almost outside of the dispersal range of CRLF and the Project site has marginal habitat, there is a low potential for CRLF to occur on-site. This species is not documented on and has not been observed on the Project site. The CRLF is a covered species under the SJMSCP; therefore, it is anticipated that any impacts to CRLF would be ***less than significant*** through compliance with Mitigation Measure 3.4-1, which requires the Project proponent to obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species.

Western Spadefoot: The California Species of Special Concern western spadefoot occurs primarily in grassland habitats, but can also be found in valley-foothill hardwood woodlands. The western spadefoot requires shallow, temporary pools or streams during breeding season and egg-laying. Where natural vernal pools are absent, western spadefoots may make use of artificial ponds and stock tanks. Most of the year, western spade foots reside in burrows at depths of up to 3 feet. Adult western spadefoot movement is limited to rainy or humid nights during the breeding season; adults are rarely found on the surface at other times of the year. This species feeds mainly on invertebrates such as insects and worms.

There are no CNDDB records of this species within five miles of the Project site. Additionally, appropriate habitat for this species is limited within the project site, and this species has a low potential to occur on-site. However, limited habitat is present along the Delta Mendota Canal along the southern boundary of the project site. The western spadefoot is a covered species under the SJMSCP; therefore, it is anticipated that any impacts to western spadefoot would be ***less than significant*** through compliance with Mitigation Measure 3.4-1, which requires the Project proponent to obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species.

Western Pond Turtle: The western pond turtle (*Emys marmorata*) is a California Species of Special Concern. Its favored habitats include streams, large rivers and canals with slow-moving water, aquatic vegetation, and open basking sites. Although the turtles must live near water, they can tolerate drought by burrowing into the muddy beds of dried drainages. This species feeds mainly on invertebrates such as insects and worms, but will also consume small fish, frogs, mammals and some plants. Western pond turtle predators include raccoons, coyotes, raptors, weasels, large fish, and bullfrogs. This species breeds from mid to late spring in adjacent open grasslands or sandy banks.

The necessary habitat for this species is not present within the project site, and this species has a low potential to occur on-site. However, marginal habitat (i.e., habitat which supports only a few species or individuals because of the limiting environmental conditions) is present along the Delta Mendota Canal along the southern boundary of the project site. The Project site could provide some upland habitat, including nesting opportunities during fallow periods; however, active agricultural activities in the immediate vicinity, as well as regular disking for weed abatement on-site, largely inhibit upland nesting for this species. The western pond turtle is a covered species under the SJMSCP; therefore, it is anticipated that any impacts to western pond turtle would be ***less than significant*** through compliance with Mitigation Measure 3.4-1, which requires the Project proponent to obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species.

San Joaquin Coachwhip: The San Joaquin coachwhip is a California Species of Special Concern due to extensive habitat loss and fragmentation in its restricted range, including conversion of large areas of suitable habitat to agricultural use in the San Joaquin Valley and urban development in areas of the inner Coast Ranges. The San Joaquin coachwhip occurs generally in dry, desert-like habitats as well as grasslands, chaparral and pastures with little or no cover, and avoids dense vegetation where it cannot move quickly, including mixed oak chaparral woodland.

According to the CNDDB records search, there are no documented or observed San Joaquin coachwhips within the Project site. The CNDDB notes one occurrence within 3-miles of the Project site, located approximately 2.7 miles west of the site along Midway Road north of its junction with Patterson Pass Road. Additionally, there are two other occurrences within 5-miles of the Project site located along Corral Hollow Road and located north of Corral Hollow Road between Livermore and Tracy.

The southern portion of the Development Area is currently developed with three single-family residences and six ancillary structures. The remainder of the Development Area consists primarily of ruderal grasses which are regularly disced. The Project site has been historically used for agricultural uses. Previous disking on-site for agriculture likely eliminated the snake's food base and the mammal burrows it uses for refuge; therefore, this species has a low potential to occur. The San Joaquin coachwhip is a covered species under the SJMSCP; therefore, it is anticipated that any impacts to the San Joaquin coachwhip would be ***less than significant*** through compliance with Mitigation Measure 3.4-1, which requires the Project proponent to obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species.

Alameda Whipsnake: The federally and State-listed Threatened Alameda whipsnake is typically restricted to valley-foothill hardwood habitat on south-facing slopes with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses. The CNDDB records shows that there are no Alameda whipsnake occurrences within 5 miles of the Project site. This species was not observed during the reconnaissance level survey of the site. Given the flat topography and agricultural nature of the Project site and surrounding area, there is a low potential for this species to occur on-site. Therefore, the proposed project would have a ***less than significant*** impact on the Alameda whipsnake species.

Northern California Legless Lizard: The Northern California legless lizard is a California Species of Special Concern and favors sandy or loose loamy soils under sparse vegetation typically found in chaparral, coastal dunes, and coastal scrub habitats. Their adaptation for burrowing, which requires soils with a high sand fraction, makes legless lizards vulnerable to ground disturbing activities such as agriculture. As shown in Figure 3.6-1 in Section 3.6, all of the site soils are Capay clay soils. The site does not contain sandy or loose loamy soils. Limited to no habitat is present in the Project area. Therefore, the site is unsuitable for silvery legless lizards. Additionally, the CNDDB records shows that there are no Northern California legless lizard occurrences within 5 miles of the Project site. Therefore, the proposed project would have a ***less than significant*** impact on the Northern California legless lizard species.

California Glossy Snake: The California glossy snake is a California Species of Special Concern and is most common in desert habitats but also occur in chaparral, sagebrush, valley-foothill hardwood, pine-juniper, and annual grass at elevations from below sea level to 1830 m. This species prefers open sandy areas with scattered brush, as well as rocky areas. Primarily nocturnal, glossy snakes spend periods of inactivity during the day and during winter in mammal burrows and rock outcrops, and to a lesser extent under surface objects such as flat rocks and vegetation residue.

According to the CNDDB, all nearby occurrences of the California glossy snake occur in the more mountainy/higher elevations west and southwest of Interstate 580 located along either Patterson Run Road (approximately 3.4 miles southwest of the Project site or further) or Corral Hollow Creek Road (approximately 4.3 miles south of the Project site or further) where the land cover is more appropriate for this species. The Project site does not contain open sandy areas with scattered brush or rocky areas. Although limited shrub/scrub land cover exists in the southern half of the site near the existing residences, regular disking and mowing on-site for agriculture and weed/vegetation abatement is a regular disturbance to refuge and foraging habitat. There is a low potential for this species to occur on-site and the California glossy snake is presumed absent from the site. Therefore, the proposed project would have a ***less than significant*** impact on the California glossy snake species.

Coast Horned Lizard: The coast horned lizard is a California Species of Special Concern that is not an uncommon species in the region even in the absence of records. This species requires loose sandy soil in which it can rapidly dig in order to avoid predators. The soils of the Project site are generally too heavy in clays for this type of digging by horned lizards. In addition, farming practices have disturbed the majority of the topsoil. Therefore, this species is presumed absent from the Project site, even though they are fairly common in the region. There are three CNDDB records within 5 miles of the site. No coast horned lizards were observed within the Project site or offsite improvement corridors during the field survey and none are expected to be affected by the proposed project based on the absence of habitat. Therefore, the proposed project would have a ***less than significant*** impact on the coast horned lizard species.

MITIGATION MEASURE(S)

*Implement **Mitigation Measure 3.4-1**.*

Impact 3.4-3: The proposed Project has the potential to have direct or indirect effects on special-status bird species. (Less than Significant with Mitigation)

Special-status birds that are documented in the CNDDB within a ten-mile radius of the Project site include: Cooper's hawk (*Accipiter cooperii*), tricolored blackbird (*Agelaius tricolor*), grasshopper sparrow (*Ammodramus savannarum*), golden eagle (*Aquila chrysaetos*), short-eared owl (*Asio flammeus*), burrowing owl (*Athene cunicularia*), ferruginous hawk (*Buteo regalis*), Swainson's hawk (*Buteo swainsoni*), northern harrier (*Circus hudsonius*), white-tailed kite (*Elanus leucurus*), California horned lark (*Eremophila alpestris actia*), prairie falcon (*Falco mexicanus*), bald eagle (*Haliaeetus leucocephalus*), loggerhead shrike (*Lanius ludovicianus*), song sparrow ("Modesto" population) (*Melospiza melodia*), and least Bell's vireo (*Vireo bellii pusillus*). Least Bell's vireo is not covered by the SJMSCP; the remaining bird species are covered by the SJMSCP.

The Project site may provide suitable foraging habitat for a variety of potentially occurring special-status birds, including those listed above. Potential nesting habitat is present in a variety of trees located within the Project site. There is also the potential for other special-status birds that do not nest in this region and represent migrants or winter visitants to forage on the Project site.

Year-Round Birds: Special-status birds that can be present in the region throughout the year include: bald eagle (*Haliaeetus leucocephalus*), grasshopper sparrow (*Ammodramus savannarum*), burrowing owl (*Athene cunicularia*), loggerhead shrike *(Lanius ludovicianus*), song sparrow (Modesto population) (*Melospiza melodia*), tricolored blackbird *(Agelaius tricolor*), among others. Some of these species are migratory, but also reside year-round in California.

Summering Birds: Special-status birds that are only present in the region in the spring and summer months include: Aleutian goose (*Branta canadensis leucopareia*), least bittern (*Ixobrychus exilis*), Swainson's hawk (*Buteo swainsoni*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), least Bell's vireo (*Vireo bellii pusillus*), and yellow-billed magpie (*Pica nuttalli*).

Overwintering Birds: Special-status birds that are only present in the region in the fall and winter months include: fox sparrow (*Passerella iliaca*), lesser yellowlegs (*Tringa flavipes*), Lewis's woodpecker (*Melanerpes lewis*), long-billed curlew (*Numenius americanus*), marbeled godwit (*Limosa fedoa*), merlin *(Falco columbarius*), mountain plover (*Charadrius montanus*), peregrine falcon (*Falco peregrinus*), short-eared owl (*Asio flammeus*), and western grebe (A*echmophorus occidentalis*).

Nesting Raptors (Birds of Prey): All raptors (owls, hawks, eagles, falcons), including species and their nests, are protected from take pursuant to the Fish and Game Code of California Section 3503.5, and the federal Migratory Bird Treaty Act, among other federal and State regulations. Special-status raptors that are known to occur in the region include: bald eagle (*Haliaeetus leucocephalus*), burrowing owl (*Athene cunicularia*), Cooper's hawk *(Accipiter cooperii*), ferruginous hawk *(Buteo rega*), golden eagle *(Aquila chrysaetos*), prairie falcon *(Falco mexicanus*), short-eared owl (*Asio flammeus*), Swainson's hawk *(Buteo swainsoni*), and white-tailed kite *(Elanus leucurus*), among others.

Analysis: Powerlines located in the vicinity and trees on-site represent potentially suitable nesting habitat for a variety of special-status birds. Powerlines exist throughout the region and mature trees are located on the Project site. Least Bell's vireos, a riparian species, depends on dense, low-growing thickets of willows, mulefat, mugwort, and California wild rose. Vireos inhabit areas where an overstory of taller willows, cottonwoods, and sycamores is also present. During the winter, they are known to occur in mesquite scrub vegetation. Foraging sometimes takes place in adjacent chaparral and coastal sage scrub. Nesting or foraging habitat for least Bell's vireo is not found on-site; as such, this species has no potential to be present.

The agricultural land represents potentially suitable nesting habitat for the ground-nesting birds. In general, most nesting occurs from late February and early March through late July and early August, depending on various environmental conditions.

The CNDDB currently contains nesting records for Swainson's hawk and burrowing owl in the vicinity of the Project site. In addition to the species described above, common raptors and migratory birds may nest in or adjacent to the Project site.

New sources of noise and light during the construction and operational phases of the project could adversely affect nesters if they located adjacent to the Project site in any given year. Additionally,

the proposed Project would eliminate the agricultural areas on the Project site, which serve as potential foraging habitat for birds throughout the year. Mitigation Measure 3.4-1 requires participation in the SJMSCP. As part of the SJMSCP, SJCOG requires preconstruction surveys for projects that occur during the avian breeding season (March 1 – August 31). When active nests are identified, the biologists develop buffer zones around the active nests as deemed appropriate until the young have fledged. SJCOG also uses the fees to purchase habitat as compensation for the loss of foraging habitat. Implementation of the proposed Project, with the Mitigation Measure 3.4-1, would ensure that potential impacts to special status birds are reduced to a ***less than significant*** level.

MITIGATION MEASURE(S)

*Implement **Mitigation Measure 3.4-1**.*

Impact 3.4-4: The proposed Project has the potential to result in direct or indirect effects on special-status mammal species. (Less than Significant with Mitigation)

Special-status mammals that occur within the nine-quad region for the Project site according to the CNDDB include: Pallid bat (*Antrozous pallidus*), Berkeley kangaroo rat (*Dipodomys heermanni berkeleyensis*), Townsend's big-eared bat (*Eumops perotis californicus*), Western mastiff bat (*Eumops perotis californicus*), hoary bat (*Lasiurus cinereus*), San Joaquin pocket mouse (*Perognathus inornatus*), Riparian brush rabbit (*Sylvilagus bachmani riparius*), American badger (*Taxidea taxus*), and San Joaquin kit fox (*Vulpes macrotis mutica*). As noted in Table 3.4-2, Berkeley kangaroo rat (*Dipodomys heermanni berkeleyensis*), Townsend's big-eared bat (*Eumops perotis californicus*), Western mastiff bat (*Eumops perotis californicus*), San Joaquin pocket mouse (*Perognathus inornatus*), Riparian brush rabbit (*Sylvilagus bachmani riparius*), American badger (*Taxidea taxus*), and San Joaquin kit fox (*Vulpes macrotis mutica*) are covered species under the SJMSCP.

Berkeley Kangaroo Rat and Riparian Brush Rabbit: As noted in Table 3.4-2, Berkeley kangaroo rats prefer open grassy hilltops and open spaces in chaparral and blue oak/digger pine woodlands. This species requires fine, deep well-drained soil for burrowing. Riparian brush rabbits prefer native valley riparian habitats with large clumps of dense shrubs, low-growing vines, and some tall shrubs and trees. The Project site does not contain appropriate soil types or habitat for the Berkeley kangaroo rat or the riparian brush rabbit. According to CNDDB, there is only one occurrence of the Berkeley kangaroo rat within the nine-quad region of the Project site located over 15 miles southwest of the site in Alameda County. Additionally, there is only one recorded occurrence of the riparian brush rabbit within the nine-quad region of the Project site located approximately 8.2 miles northeast of the site along the Salmon Slough. While there is low potential for these species to occur on-site, the Berkeley kangaroo rat and riparian brush rabbit are both covered species under the SJMSCP; therefore, it is anticipated that any impacts to these species would be ***less than significant*** through compliance with Mitigation Measure 3.4-1, which requires the Project proponent to obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species.

San Joaquin Pocket Mouse: The southern portion of the Development Area is currently developed with three single-family residences and six ancillary structures. The Project site has been historically used for agricultural uses. Previous disking on-site for agriculture likely eliminated high quality habitat for the San Joaquin pocket mouse, which is primarily found in grassland, oak savanna and arid scrubland in areas with fine-textured, sandy, and friable soils. The closest documented occurrence of San Joaquin pocket mouse is approximately 2.5 miles northwest of the Project site. Additionally, the majority of San Joaquin pocket mouse occurrences are recorded southwest/west of Interstate 580; therefore, it is unlikely that the Project site is used by San Joaquin pocket mouse. It is noted that during fallow periods, the site improves for this species, until it is disked for weed abatement on-site.

While there is low potential for these species to occur on-site, the San Joaquin pocket mouse is a covered species under the SJMSCP; therefore, it is anticipated that any impacts to this species would be ***less than significant*** through compliance with Mitigation Measure 3.4-1, which requires the Project proponent to obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species.

American Badger: The southern portion of the Development Area is currently developed with three single-family residences and six ancillary structures. The Project site has been historically used for agricultural uses. Previous disking on-site for agriculture likely eliminated high quality habitat for the American badger, which is primarily found in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. The closest documented occurrence of American badger is approximately 3.1 miles west of the Project site. Additionally, the majority of American badger occurrences are recorded southwest/west of Interstate 580. This species is highly mobile, and will forage where opportunities exist. During fallow periods, the site improves for this species.

While there is low potential for these species to occur on-site, the American badger is a covered species under the SJMSCP; therefore, it is anticipated that any impacts to this species would be ***less than significant*** through compliance with Mitigation Measure 3.4-1, which requires the Project proponent to obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species.

San Joaquin Kit Fox: San Joaquin kit fox is known to occur in western San Joaquin County within annual grasslands and alkali scrub communities with suitable prey base and loose-textured sandy soils where dens can be enlarged from California ground squirrel burrows. According to the CNDDB, the nearest occurrence of the San Joaquin kit fox is approximately 0.45-miles south of the Project site between the Delta Mendota Canal and the California Aqueduct while the majority of occurrences are reported to the south and west of the California Aqueduct. Suitable grassland foraging habitat occurs in the vicinity of the Project site where ground squirrels are abundant. This is a highly mobile species. Therefore, there is a moderate to high potential for the San Joaquin Kit Fox to forage on the Project site at times, especially during fallow periods. There were no dens present on-site during the reconnaissance level site survey, and the active agricultural operations adjacent to the site, as well as the regular disking of the site for weed abatement, inhibit any establishment of dens. The San Joaquin kit fox is covered species under the SJMSCP; therefore, it is anticipated that any impacts to this species would be ***less than significant*** through compliance with

Mitigation Measure 3.4-1, which requires the Project proponent to obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species.

Special-Status Bats: The CNDDB also identifies several special-status bats that occur within the nine-quad region of the Project site, including: Pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Eumops perotis californicus*), Western mastiff bat (*Eumops perotis californicus*), and hoary bat (*Lasiurus cinereus*). These species are not federal or state listed; however, they are tracked by the CNDDB. Development of the Project site would eliminate foraging habitat for special status bats by removing the agricultural areas. These special status bat species are covered by the SJMSCP, with the exception of the hoary bat.

Hoary Bat: Hoary bats are the most widespread North American bat and could be found at any location in California. This species prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Specifically, this species is typically located in broadleaved upland forests, cismontane woodlands, lower montane coniferous forests, and north coast coniferous forests.

The Project site does not have appropriate roosting habitat to support the hoary bat. Additionally, there is only one documented occurrence of this species in the nine-quad region of the Project site, located approximately 15 miles southwest of the site just south of Livermore near Veterans Park. While bats are highly mobile, hoary bats are not anticipated to occur within the Project site and the proposed Project would have a ***less than significant*** impact on this species.

Covered Bat Species: The remaining special status bat species (i.e., Pallid bat, Townsend's big-eared bat, Western mastiff bat) have not been documented on the Project site. Potential low quality roosting habitat is present on-site in the outbuildings. Disturbance and human activity on-site reduce the quality of potential habitat. While they are highly mobile and may be present on adjacent properties, they are not expected to be directly affected by the proposed project. These special status bat species are all covered species under the SJMSCP; therefore, it is anticipated that any impacts to the pallid bat, pale big-eared bat, and Western mastiff bat would be ***less than significant*** through compliance with Mitigation Measure 3.4-1, which requires the Project proponent to obtain coverage under the SJMSCP to provide compensation for the loss of the potential foraging habitat.

MITIGATION MEASURE(S)

*Implement **Mitigation Measure 3.4-1**.*

Impact 3.4-5: The proposed Project has the potential for direct or indirect effects on candidate, sensitive, or special-status plant species. (Less than Significant)

The Project site is currently undeveloped and has been previously used for agricultural uses. As identified in Table 3.4-1, the records search identified 45 documented special-status plant species within the nine-quad-region of the Project site; however, given the existing habitat and elevation of the Project site, only seven special-status plant species have a low to moderate potential to occur on-site, including: Large-flowered fiddleneck (*Amsinckia grandiflora*), Big tarplant (*Blepharizonia*

plumosa), Recurved larkspur (*Delphinium recurvatum*), diamond-petaled California poppy (*Eschscholzia rhombipetala*), Stinkbells (*Fritillaria agrestis*), Saline clover (*Trifolium hydrophilum*), and Caper-fruited tropidocarpum (*Tropidocarpum capparideum*). Of these species, Large-flowered fiddleneck (*Amsinckia grandiflora*), Recurved larkspur (*Delphinium recurvatum*), diamond-petaled California poppy (*Eschscholzia rhombipetala*), and Caper-fruited tropidocarpum (*Tropidocarpum capparideum*) are covered species under the SJMSCP.

Of the seven species with potential to occur on-site, the large-flowered fiddleneck, Big tarplant, diamond-petaled California poppy, and caper-fruited tropidocarpum are CNPS 1B listed species; the recurved larkspur and saline clover are CNPS 2 listed species; and the stinkbells is a CNPS 4 listed species. Additionally, the large-flowered fiddleneck is the only federal listed (endangered) species and state listed (endangered) species.

SJMCP Covered Special-Status Plant Species: Of the seven special status species with potential to occur on-site, the large-flowered fiddleneck, recurved larkspur, diamond-petaled California poppy, and caper-fruited tropidocarpum are covered under the SJMSCP. Therefore, any impacts to these species would be ***less than significant*** through compliance with Mitigation Measure 3.4-1, which requires the Project proponent to obtain coverage under the SJMSCP to mitigate for habitat impacts to covered special status species.

Remaining Special-Status Plant Species: The remaining three plant species are not covered by the SJMSCP: big tarplant, stinkbells, and saline clover. A field survey/habitat evaluation was performed on April 16, 2022. The field survey coincided with the early blooming period for special status plants known to occur within the region. No special-status plant species were observed within the Project site during the field survey and none are expected to be affected by the proposed Project. As previously mentioned, Project site has been agricultural land since the 1930s. The undeveloped portions of the site were fallow at the time of the field survey, with non-native annual grasses. Due to the extent of past disturbance from agricultural production, canal maintenance, and other development activities in the area, the potential these species-status plant species to occur on the Project site is generally considered to be low. For these reasons, the proposed Project would have a ***less than significant*** impact on special status plants.

Impact 3.4-6: The proposed Project has the potential to effect protected wetlands and jurisdictional waters. (No Impact)

A wetland is an area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Wetlands are defined by regulatory agencies as having special vegetation, soil, and hydrology characteristics. Hydrology, or water inundation, is a catalyst for the formation of wetlands. Frequent inundation and low oxygen cause chemical changes to the soil properties resulting in what is known as hydric soils. The prevalent vegetation in wetland communities consists of hydrophytic plants,

which are adapted to areas that are frequently inundated with water. Hydrophytic plant species have the ability to grow, effectively compete, reproduce, and persist in low oxygen soil conditions.

Below is a list of wetlands that are found in the Tracy planning area:

- Farmed Wetlands: This category of wetlands includes areas that are currently in agricultural uses. This type of area occurs in the northern portion of the Tracy Planning Area.
- Lakes, Ponds and Open Water: This category of wetlands includes both natural and human-made water bodies such as that associated with working landscapes, municipal water facilities and canals, creeks and rivers.
- Seasonal Wetlands: This category of wetlands includes areas that typically fill with water during the wet winter months and then drain enough to become ideal plant habitats throughout the spring and summer. There are numerous seasonal wetlands throughout the Tracy Planning Area.
- Tidal Salt Ponds and Brackish Marsh: This category of wetlands includes areas affected by irregular tidal flooding with generally poor drainage and standing water. There are minimal occurrences along some of the larger river channels in the northern portion of the Tracy Planning Area.

None of these categories apply to the Project site. The Delta Mendota Canal and the California Aqueduct are not subject to regulatory permit, such as Section 401 Water Quality certification, Section 404 Nationwide Permit, or 1600 Streambed Alteration Agreement.

Additionally, the historic ponds were previously associated with on-site dairy operations and no longer contain water. According to Steve McMurtry, Staff Biologist with De Novo Planning Group, the Project site does not contain protected wetlands or other jurisdictional areas and there is no need for permitting associated with the federal or state Clean Water Acts. The Project site has contained agricultural uses since at least 1930. At times the Project site is fallow, and forms an annual grassland composed of non-native annuals, before it is disked for weed abatement on-site. The historic ponds are exempt from jurisdiction due to it being manmade basins. Absent any wetlands or jurisdictional waters, implementation of the proposed Project would have ***no impact*** relative to this topic.

Impact 3.4-7: The proposed Project has the potential to result in adverse effects on riparian habitat or a sensitive natural community. (No Impact)

The records search identified the following five documented sensitive natural communities within the nine-quad search for the project site: Alkali Meadow, Great Valley Cottonwood Riparian Forest, Great Valley Oak Riparian Forest, Northern Claypan Vernal Pool, Valley Sink Scrub. None of these community types are found on the project site. Riparian habitat is also not found on-site, or upland from the project site. Implementation of the proposed project will have a ***less than significant*** impact on riparian habitat and sensitive natural communities.

Impact 3.4-8: The proposed Project has the potential to result in interference with the movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites. (Less than Significant)

The CNDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the Project site. The closest major natural movement corridor for native fish that are documented in the region is the San Joaquin River, located approximately 12 miles east of the Project site, and its tributaries. Additionally, the Delta Mendota Canal generally runs along the southern boundary of the project site and the California Aqueduct is approximately 0.5 miles south of the site. According to the CNDDB, there is only one recorded occurrence for each special status fish species, which are all located adjacent to the Clifton Court Forebay in Contra Costa County within the California Aqueduct and Delta Mendota Canal/Old River. The land uses within the Project site would not have any direct disturbance to the Delta Mendota Canal, California Aqueduct, or the San Joaquin River and its tributaries, and therefore, would not have any direct disturbance to the movement corridor or habitat.

The ongoing operational phase of the proposed Project requires discharge of stormwater into the City storm drainage system, which ultimately discharges into the Delta. The discharge of stormwater could result in indirect impacts to special status fish and wildlife if stormwater was not appropriately treated through BMPs prior to its discharge to the Delta. The Project is subject to the requirements of Chapter 11.34 of the Tracy Municipal Code – Stormwater Management and Discharge Control. The purpose of this Chapter is to "*Protect and promote the health, safety and general welfare of the citizens of the City by controlling non-stormwater discharges to the stormwater conveyance system, by eliminating discharges to the stormwater conveyance system from spills, dumping, or disposal of materials other than stormwater, and by reducing pollutants in urban stormwater discharges to the maximum extent practicable.*"

This Chapter is intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 USC Section 1251 et seq.), Porter- Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) and National Pollutant Discharge Elimination System ("NPDES") Permit No. CAS000004, as such permit is amended and/or renewed. The management of water quality through BMPs is intended to ensure that water quality does not degrade to levels that would interfere or impede fish or wildlife. Implementation of these required measures would ensure that this potential impact is reduced to a ***less than significant*** level.

Impact 3.4-9: The proposed Project has the potential to conflict with an adopted Habitat Conservation Plan. (Less than Significant with Mitigation)

The proposed Project is subject to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The proposed Project does not conflict with the SJMSCP. Mitigation Measure 3.4-1 requires participation in the SJMSCP. Therefore, with this mitigation, the proposed Project would have a ***less than significant*** impact relative to this topic.

MITIGATION MEASURE(S)

*Implement **Mitigation Measure 3.4-1**.*

Impact 3.4-10: The proposed Project has the potential to conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (No Impact)

The Open Space and Conservation Element of the General Plan establishes numerous policies and implementation measures related to biological resources as listed below:

OPEN SPACE AND CONSERVATION ELEMENT POLICIES

OSC-1.1-P-1. New development shall meet all federal, State and regional regulations for habitat and species protection.

- ***Consistent**: This EIR provides a detailed overview of the applicable regulatory requirements to ensure the Project complies with all federal, State, and regional regulations for habitat and species protections. Additionally, this EIR includes an in-depth analysis of impacts for sensitive plants and wildlife, as well as habitat. Where impacts are identified, mitigation measures are presented to minimize, avoid, or compensate to the extent practicable.*

OSC-1.1-P-2. The City shall continue to participate with the SJCOG and other agencies to implement and enforce the SJMSCP.

- ***Consistent**: The proposed Project is subject to the SJMSCP. The proposed Project does not conflict with the SJMSCP. Mitigation Measure 3.4-1 requires participation in the SJMSCP.*

OSC-1.1-P-3. New development should incorporate native, drought tolerant vegetation into landscape plans and reduce the use of invasive, non-native plant species.

- ***Consistent**: The landscape plan includes a mix of drought-tolerant shrubs and grasses, and a variety of shade trees appropriate for the climate in Tracy would be used throughout the parking lots and along the Project perimeter.*

OSC-5.1-P-2. The City shall encourage the establishment and maintenance of trees on public and private property to create an urban forest.

- ***Consistent**: As noted above in the discussion for Policy OSC-1.1-P-3, the landscape plan includes a variety of shade trees appropriate for the climate in Tracy would be used throughout the parking lots and along the Project perimeter.*

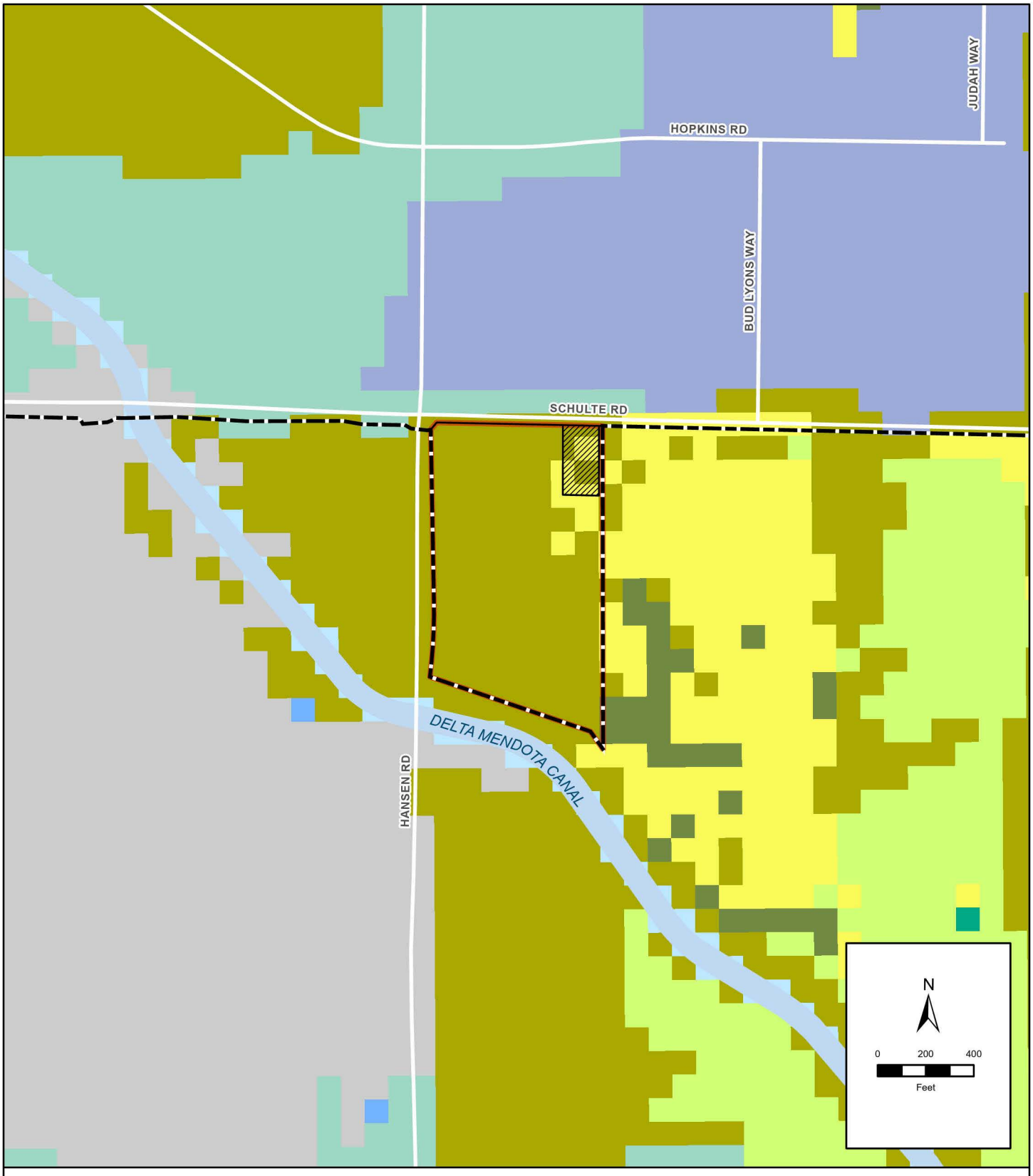
TRACY MUNICIPAL CODE

The Tracy Municipal Code outlines the Street Tree Removal Criteria under Chapter 7.08. Section 7.08.050 of the Municipal Code prohibits cutting, pruning, removing, injuring, or interference with any tree, shrub, or plant upon or in any street tree area or other public place in the City without

prior approval from the Public Work director. According to the *Preliminary Arborist Report and Tree Inventory* (CalTLC, July 2022) completed for the project (see Appendix C), a total of 33 trees are located on-site. All of the trees are on private property associated with the existing residence and associated outbuildings, and none of the trees are street trees. The proposed Project does not require the removal of any street trees subject to the regulations outlined under Chapter 7.08; therefore, the proposed Project is consistent with Chapter 7.08. The Project would have ***no impact*** related to conflicts with the City's municipal code

CONCLUSION

Based on the analysis above, the proposed Project does not conflict with local policies or ordinances protecting biological resources. Therefore, the proposed Project would have ***no impact*** relative to this topic.



LEGEND

- Project Site/ Annexation Area
- Tracy City Limits

Development Area

- Development Area
- Williams Communication Parcel, not to be developed

Land Cover Types

- Annual Grassland
- Barren
- Deciduous Orchard
- Dryland Grain Crops
- Evergreen Orchard
- Irrigated Hayfield
- Lacustrine
- Pasture
- Riverine
- Urban

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 3.4-1. Land Cover Type Map

Sources: FRAP; City of Tracy, San Joaquin County GIS. Map date: February 28, 2023.

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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This section provides a discussion of the prehistoric period background, ethnographic background, historic period background, known cultural resources in the region, the regulatory setting, an impact analysis, and mitigation measures. Information in this section is derived primarily from the San Joaquin County General Plan (San Joaquin County, 2016), City of Tracy General Plan (City of Tracy, 2011), City of Tracy General Plan EIR (City of Tracy, 2011), California Historic Resources Information System (CHRIS) search (Central California Information Center [CCIC], 2023), and the West Schulte Road Warehouse Project Preliminary Geotechnical Engineering Report (Wallace Kuhl, March 2022).

One comment was received during the public review period or scoping meeting for the Notice of Preparation (NOP) regarding this topic by the Native American Heritage Commission. Full comments received are included in Appendix A.

KEY TERMS

The following key terms are used throughout this section to describe cultural and tribal resources and the framework that regulates them:

Archaeology. The study of historic or prehistoric peoples and their cultures by analysis of their artifacts and monuments.

Complex. A patterned grouping of similar artifact assemblages from two or more sites, presumed to represent an archaeological culture.

Ethnography. The study of contemporary human cultures.

3.5.1 ENVIRONMENTAL SETTING

PROJECT SETTING

Project Site

The Project site is immediately south of the intersection of Bud Lyons Way and West Schulte Road. The Project site is bounded on the north by West Schulte Road, on the west by an unnamed driveway serving the adjacent rural residence, on the south by the Delta Mendota Canal, and on the east by vacant agricultural land. The Project site is located within Sections 35 of Township 2 South, Range 4 East Mount Diablo Base Meridian (MDBM).

The Project site is bound by Hansen Road to the west, West Schulte Road to the north, the Delta Mendota Canal to the south, and a private driveway and vacant land on the east. Surrounding land uses include the Cal Fire Station 26 and vacant land to the west, vacant land previously used for agricultural uses to the east, two industrial warehouses to the north, and the Delta Mendota Canal and agricultural land to the south. It is noted that an industrial warehouse Project, the Costco Depot Annexation Project, is currently (as of July 2023) proposed adjacent east of the Project site. The area north of the project site is part of the Cordes Ranch Specific Plan Area.

The southern portion of the Development Area is currently developed with three single-family residences and six ancillary structures (see Figure 2.0-3). The remainder of the Development Area consists primarily of ruderal grasses which are regularly disced. The Development Area topography is generally flat, with the exception of two five- to ten-foot historic ponds located along the eastern site boundary. The historic ponds were previously associated with on-site dairy operations and no longer contain water.

The Williams Communications Parcel is currently developed with a low voltage transmission station operated by Williams Communications, Inc. Permanent employees do not exist on-site, and access to the site is limited to maintenance vehicles and maintenance personnel. The use of this parcel as a low voltage transmission station would remain as existing.

Surrounding Uses

Surrounding land uses include warehouse distribution and other industrial uses to the north (within the Cordes Ranch Specific Plan Area, located in the City of Tracy), vacant agricultural land within unincorporated San Joaquin County to the east, the Delta Mendota Canal and agricultural land within unincorporated San Joaquin County to the south, and a rural residence, CalFire station, and Delta Mendota Canal to the west (within unincorporated San Joaquin County).

CULTURAL AND HISTORICAL BACKGROUND

Prehistory

In the early decades of the 1900s, E.J. Dawson explored numerous sites near Stockton and Lodi, later collaborating with W.E. Schenck (Schenck and Dawson 1929). By 1933, the focus of work was directed to the Cosumnes locality where survey and excavation studies were conducted by the Sacramento Junior College (Lillard and Purves 1936). Excavation data, in particular from the stratified Windmiller site (CA-Sac-107), suggested two temporally distinct cultural traditions. Later work at other mounds by Sacramento Junior College and the University of California, Berkeley, enabled the investigators to identify a third cultural tradition, intermediate between the previously postulated Early and Late Horizons. The three-horizon sequence, based on discrete changes in ornamental artifacts and mortuary practices, as well as on observed differences in soils within sites (Lillard, Heizer and Fenenga 1939), was later refined by Beardsley (1954). An expanded definition of artifacts diagnostic of each time period was developed, and its application extended to parts of the central California coast. Traits held in common allow the application of this system within certain limits of time and space to other areas of prehistoric central California.

The Windmiller Culture (Early Horizon) is characterized by ventrally-extended burials (some dorsal extensions are known), with westerly orientation of heads; a high percentage of burials with grave goods; frequent presence of red ocher in graves; large projectile points, of which 60 percent are of materials other than obsidian; rectangular *Haliotis* beads; *Olivella* shell beads (types A1a and L); rare use of bone; some use of baked clay objects; and well-fashioned charmstones, usually perforated.

The Cosumnes Culture (Middle Horizon) displays considerable changes from the preceding cultural expression. The burial mode is predominately flexed, with variable cardinal orientation and some cremations present. During the Middle Horizon, there is a lower percentage of burials with grave goods, and ocher staining is common in graves. *Olivella* beads of types C1, F and G predominate, and there is abundant use of green *Haliotis* sp. rather than red *Haliotis* sp. Other characteristic artifacts include perforated and canid teeth; asymmetrical and "fishtail" charmstones, usually unperforated; cobble mortars and evidence of wooden mortars; extensive use of bone for tools and ornaments; large projectile points, with considerable use of rock other than obsidian; and use of baked clay.

The Hotchkiss Culture (Late Horizon) burial pattern retains the use of the flexed mode. There is wide spread evidence of cremation, and lesser use of red ocher, heavy use of baked clay, *Olivella* beads of Types E and M, extensive use of *Haliotis* ornaments of many elaborate shapes and forms, shaped mortars and cylindrical pestles, bird-bone tubes with elaborate geometric designs, clam shell disc beads, small projectile points indicative of the introduction of the bow and arrow, flanged tubular pipes of steatite and schist, and use of magnesite (Moratto 1984:181-183). The characteristics noted are not all-inclusive, but cover the more important traits.

Schulz (1981), in an extensive examination of the central California evidence for the use of acorns, used the terms Early, Middle and Late Complexes, but the traits attributed to them remain generally the same. While it is not altogether clear, Schulz seemingly uses the term “Complex” to refer to the particular archeological entities (above called “Horizons”) as defined in this region. Ragir's (1972) cultures are the same as Schulz's complexes.

Bennyhoff and Hughes (1984) have presented alternative dating schemes for the Central California Archeological Sequence. The primary emphasis is a more elaborate division of the horizons to reflect what is seen as cultural/temporal changes within the three horizons and a compression of the temporal span.

There have been other chronologies proposed, including Fredrickson (1973), and because it is correlated with Bennyhoff's (1977) work, it does merit discussion. The particular archeological cultural entities Fredrickson has defined, based upon the work of Bennyhoff, are patterns, phases and aspects. Bennyhoff's (1977) work in the Plains Miwok area is the best definition of the Cosumnes District, which likely conforms to Fredrickson's pattern. Fredrickson also proposed periods of time associated heavily with economic modes, which provides a temporal term for comparing contemporary cultural entities. It corresponds with Willey and Phillips' (1958) earlier “tradition”, although it is tied more specifically to the archeological record in California.

Ethnography

The Project site lies within the ethnographic territory of the Yokuts people. The Yokuts were members of the Penutian language family which held all of the Central Valley, San Francisco Bay Area, and the Pacific Coast from Marin County to near Point Sur. The Yokuts differed from other ethnographic groups in California as they had true tribal divisions with group names (Kroeber 1925;

Latta 1949). Each tribe spoke a particular dialect, common to its members, but similar enough to other Yokuts that they were mutually intelligible (Kroeber 1925).

The Yokuts held portions of the San Joaquin Valley from the Tehachapis in the south to Stockton in the north. On the north they were bordered by the Plains Miwok, and on the west by the Saclan or Bay Miwok and Costonoan peoples. Although neighbors were often from distinct language families, differences between the people appear to have been more influenced by environmental factors as opposed to linguistic affinities. Thus, the Plains Miwok were more similar to the nearby Yokuts than to foothill members of their own language group. Similarities in cultural inventory co-varied with distance from other groups and proximity to culturally diverse people. The material culture of the southern San Joaquin Yokuts was therefore more closely related to that of their non-Yokuts neighbors than to that of Delta members of their own language group.

Trade was well developed with mutually beneficial interchange of needed or desired goods. Obsidian, rare in the San Joaquin Valley, was obtained by trade with Paiute and Shoshoni groups on the eastern side of the Sierra Nevada, where numerous sources of this material are located, and to some extent from the Napa Valley to the north. Shell beads, obtained by the Yokuts from coastal people, and acorns, rare in the Great Basin, were among many items exported to the east by Yokuts traders (Davis 1961).

Economic subsistence was based on the acorn, with substantial dependency on gathering and processing of wild seeds and other vegetable foods. The rivers, streams, and sloughs that formed a maze within the valley provided abundant food resources such as fish, shellfish, and turtles. Game, wild fowl, and small mammals were trapped and hunted to provide protein augmentation of the diet. In general, the eastern portion of the San Joaquin Valley provided a lush environment of varied food resources, with the estimated large population centers reflecting this abundance (Cook 1955; Baumhoff 1963).

Settlements were oriented along the water ways and village sites were normally placed adjacent to these features for their nearby water and food resources. House structures varied in size and shape (Latta 1949; Kroeber 1925), with most constructed from the readily available tules found in the extensive marshes of the low-lying valley areas. The housepit depressions for the structures ranged in diameter from three to 18 meters (Wallace 1978:470).

Historic Period

In the 1850s and 1860s, ranchers and farmers began to settle in the Tracy area known as the “West Side” (Minor 1994). The Central Pacific Railroad (currently the Southern Pacific) completed a rail line through the area in 1869, which ran from Sacramento to Stockton and continued over the Altamont Pass to ultimately link with the ferry service to San Francisco. Shortly after the rail line was built, a new town sprang up along its alignment 9 miles from Stockton. The town became known as Lathrop Junction, and consisted of a roundhouse, railroad shop, rail yard, and hotels for railroad employees. The Lathrop Junction soon became the headquarters for the Central Pacific Railroad in the San Joaquin Valley. Regardless of the growth of Lathrop Junction, the railroad found it necessary to build a coaling station at the base of Altamont Pass, 14 miles west of Lathrop. The

new station was called Ellis and by 1870 it had about 45 buildings serving the needs of the railroad and its employees and their families (www.ci.tracy.ca.us).

The first extensive wheat-growing in the San Joaquin Valley took place on the sand plains in the region between Stockton and Tracy and on the west side of the valley between Tracy and Newman. The wheat growing was due to an initial experiment of John Wheeler Jones, who planted 160 acres to wheat in 1855 which included the central town site of what is now Tracy. He plowed his fields with a walking plow. The famous Stockton gang-plow was reported to be invented near the present site of Tracy (Smith 1960: 221, 243).

Construction of a new rail line from Oakland along the shores of San Francisco Bay was started in 1878. This rail line passed through Martinez, and intersected the Central Pacific at a point 3 miles east of Ellis. The line was built to avoid hills, eliminate the expense of "helper engines", and increase efficiency of travel along the line. One of the results of the new rail line was the establishment of Tracy, named after Lathrop J. Tracy, an official of the railroad, on September 8, 1878. Soon after the establishment of the new line and the town of Tracy, the railroad discontinued the coaling station at Ellis and moved its employees and their families to Lathrop and Tracy. Indeed, the town of Ellis not only relocated its population to Tracy, but also some of its buildings, including two hotels.

Tracy continued to grow as a railroad center in the late 1800s. A new, fast and cheap rail line to Los Angeles was completed at this time that passed through Tracy and Los Banos and the railroad relocated its headquarters from Lathrop to Tracy in March of 1894. Tracy was incorporated in 1910, and continued to expand because of the opening of State Highway 50 in 1914 and establishment of the West Side Irrigation District in 1915 that stimulated agricultural development of the area. Railroad operations in Tracy began to decline in the 1950s, but the city continued to prosper as an agricultural community. Agriculture is still important in the Tracy area, but the area is shifting from agriculture to residential and commercial uses because of its location near the Altamont Pass and the construction of several highways in the area.

Four residences and six buildings used for livestock, processing, and storage are present on the Project site, in addition to several small sheds and animal shelters. Two connected dry ponds are present along the central eastern edge of the property. Aerial photograph summaries indicate that several residences and farm structures potentially date back as early as prior to 1940. One of the residences is abandoned and in need of ample maintenance, both structurally and aesthetically. One of the residences is currently occupied. All of the residences have been renovated and or remodeled multiple times over the decades.[1]

[1] Personal phone communication with David Pombo, Pombo Real Estate. March 26, 2024.

KNOWN CULTURAL RESOURCES

A summary of the record search and Native American consultation that was performed for the Project site is included below.

Record Search

The purpose of the cultural records search is to identify all previously recorded cultural resources (prehistoric and historic archaeological sites, historic buildings, structures, objects, or districts) within the Project site. A search of CHRIS was requested from the CCIC located at California State University, Stanislaus on April 10, 2023, which included the Project area and a one-half mile radius (CCIC File # 12470L).

The search included a review of the CCIC maps for the Project site and immediate vicinity of the Project area, and a review of the: National Register of Historic Places (NRHP); California Register of Historical Resources (CRHR); California Inventory of Historic Resources (1976); California Historical Landmarks; California Points of Historical Interest listing; Built Environment Resource Directory; Office of Historic Preservation; and other pertinent historic data available at CCIC for San Joaquin County. The results of the record search indicate that the Project site does not contain any recorded prehistoric or historic archaeological resources or historic buildings. The General Land Office survey plat for T2S R4E (dated 1857) shows an unnamed road crossing diagonally through the NW ¼ of the NW ¼ of Section 35, outside the Project site. The 1916 edition of the Midway USGS quadrangle shows the alignment of Schulte Road and Hansen Road. The 1953 edition of the Midway 7.5' quadrangle references a road and 7 buildings within the vicinity, however, outside the Project site. The CCIC has no further information on file regarding these possible historical resources that would be 70 years in age (or older). In the vicinity of the Project site, the Delta-Mendota Canal has been recorded as P-39-000089, evaluated in reference to the National Register of Historic Resources (NR) as "2S2", individual property determined eligible for the NR by consensus through the Section 106 process, and listed on the California Register of Historical Resources. No historic or prehistoric resources have ever been recorded within the Project site.

Native American Consultation

De Novo Planning Group, on behalf of the City, sent a letter to the Native American Heritage Commission (NAHC) requesting a check of the Sacred Lands Files (SLF) for the Project area and a list of the Senate Bill (SB) 18 and Assembly Bill (AB) 52 tribal groups with traditional lands or cultural places located within the Project boundaries. The check failed to reveal any properties listed as Sacred Lands on the Project site. The NAHC provided a list of interested individuals and groups to contact regarding the site.

Pursuant to SB 18 and AB 52, consultation letters were sent via certified mail on June 23, 2023 by De Novo Planning Group, on behalf of the City, requesting information related to cultural resources or heritage sites within the Project area. The letters were sent to the nine tribal representatives listed in the NAHC response, including: Kenneth Woodrow, Chairperson of the Wuksache Indian Tribe/Eshom Valley Band; Jesus Tarango, Chairperson of the Wilton Rancheria, Neil Peyron, Chairperson of the Tule River Indian Tribe; Monica Arellano, Vice Chairwoman of the Muwekma

Ohlone Indian Tribe of the San Francisco Bay Area; Charlene Nijmeh, Chairperson of the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area; Sara Dutschke, Chairperson of the Ione Band of Miwok Indians; Rhonda Morningstar Pope, Chairperson of the Buena Vista Rancheria of Me-Wuk Indians; Corrina Gould, Chairperson of the Confederated Villages of Lisjan; Katherine Perez, Chairperson of the North Valley Yokuts Tribe. To date, no responses or requests for tribal consultation have been received.

3.5.2 REGULATORY SETTING

FEDERAL

National Historic Preservation Act

The National Historic Preservation Act was enacted in 1966 as a means to protect cultural resources that are eligible to be listed on the NRHP. The law sets forth criterion that is used to evaluate the eligibility of cultural resources. The NRHP is composed of districts, sites, buildings, structures, objects, architecture, archaeology, engineering, and culture that are significant to American History.

Virtually any physical evidence of past human activity can be considered a cultural resource. Although not all such resources are considered to be significant and eligible for listing, they often provide the only means of reconstructing the human history of a given site or region, particularly where there is no written history of that area or that period. Consequently, their significance is judged largely in terms of their historical or archaeological interpretive values. Along with research values, cultural resources can be significant, in part, for their aesthetic, educational, cultural and religious values.

National Register of Historic Places

The eligibility criteria for the NRHP are as follows (36 CFR 60.4):

> *The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and*
>
> *(A) that are associated with events that have made a significant contribution to the broad patterns of our history and cultural heritage; or*
> *(B) that are associated with the lives of persons significant in our past; or*
> *(C) that embody the distinctive characteristics of a type, period, region, or method of construction, or that represent the work of a master, or that possess high artistic values or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
> *(D) that have yielded, or may be likely to yield, information important in prehistory or history.*

American Indian Religious Freedom Act and Native American Graves and Repatriation Act

The American Indian Religious Freedom Act recognizes that Native American religious practices, sacred sites, and sacred objects have not been properly protected under other statutes. It establishes as national policy that traditional practices and beliefs, sites (including right of access), and the use of sacred objects shall be protected and preserved. Additionally, Native American remains are protected by the Native American Graves and Repatriation Act of 1990.

Other Federal Legislation

Historic preservation legislation was initiated by the Antiquities Act of 1966, which aimed to protect important historic and archaeological sites. It established a system of permits for conducting archaeological studies on federal land, as well as setting penalties for noncompliance. This permit process controls the disturbance of archaeological sites on federal land. New permits are currently issued under the Archaeological Resources Protection Act (ARPA) of 1979. The purpose of ARPA is to enhance preservation and protection of archaeological resources on public and Native American lands. The Historic Sites Act of 1935 declared that it is national policy to "Preserve for public use historic sites, buildings, and objects of national significance."

STATE

California Register of Historic Resources

The California Register of Historic Resources (CRHR) was established in 1992 and codified in the Public Resource Code §§ 5020, 5024 and 21085. The law creates several categories of properties that may be eligible for the CRHR. Certain properties are included in the program automatically, including: properties listed in the NRHP; properties eligible for listing in the NRHP; and certain classes of State Historical Landmarks. Determining the CRHR eligibility of historic and prehistoric properties is guided by CEQA Guidelines § 15064.5(b) and Public Resources Code (PRC) §§ 21083.2 and 21084.1.

Cultural resources, under CRHR guidelines, are defined as buildings, sites, structures, or objects that may have historical, architectural, archaeological, cultural, or scientific importance. A cultural resource may be eligible for listing on the CRHR if it:

- is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- is associated with the lives of persons important in our past;
- embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual or possesses high artistic values; or
- has yielded, or may be likely to yield, information important in prehistory or history.

California Environmental Quality Act

CEQA Guidelines § 15064.5 provides guidance for determining the significance of impacts to archaeological and historical resources. Demolition or material alteration of a historical resource, including archaeological sites, is generally considered a significant impact. Determining the CRHR eligibility of historic and prehistoric properties is guided by CEQA Guidelines § 15064.5(b) and PRC §§ 21083.2 and 21084.1.

CEQA also provides for the protection of Native American human remains (CEQA Guidelines § 15064.5[d]). Native American human remains are also protected under the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001 et seq.), which requires federal agencies and certain recipients of federal funds to document Native American human remains and cultural items within their collections, notify Native American groups of their holdings, and provide an opportunity for repatriation of these materials. This act also requires plans for dealing with potential future collections of Native American human remains and associated funerary objects, sacred objects, and objects of cultural patrimony that might be uncovered as a result of development projects overseen or funded by the federal government.

If a prehistoric or historic period cultural resource does not meet any of the four CRHR criteria, but does meet the definition of a "unique" site as outlined in PRC § 21083.2, it may still be treated as a significant resource if it is: an archaeological artifact, object or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,
- it has a special and particular quality such as being the oldest of its type or the best available example of its type, or
- it is directly associated with a scientifically recognized important prehistoric or historic event.

California Health and Safety Code

California Health and Safety Code § 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the NAHC. The CEQA Guidelines (§ 15064.5) specifies the procedures to be followed in case of the discovery of human remains on non-federal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

Senate Bill 18 (Burton, Chapter 905, Statutes 2004)

SB 18, authored by Senator John Burton and signed into law by Governor Arnold Schwarzenegger in September 2004, requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. This legislation, which amended Government Code §§ 65040.2,

65092, 65351, 65352, and 65560, and added Sections 65352.3, 653524, and 65562.5; also requires the Governor's Office of Planning and Research to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code §§ 65300 et seq.) and specific plans (defined in Government Code §§ 65450 et seq.).

Assembly Bill 978

In 2001, AB 978 expanded the reach of the Native American Graves Protection and Repatriation Act of 1990 and established a state commission with statutory powers to assure that federal and state laws regarding the repatriation of Native American human remains and items of patrimony are fully complied with. In addition, AB 978 also included non-federally recognized tribes for repatriation.

Assembly Bill 52

AB 52, approved in September 2014, creates a formal role in the CEQA environmental review process for California Native American tribes by creating a formal consultation process and establishing that a substantial adverse change to a tribal cultural resource has a significant effect on the environment. Tribal cultural resources are defined as:

1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    A) Included or determined to be eligible for inclusion in the CRHR;
    B) Included in a local register of historical resources as defined in PRC § 5020.1(k).
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC §5024.1 (c). In applying the criteria set forth in PRC § 5024.1 (c) the lead agency shall consider the significance of the resource to a California Native American tribe.

A cultural landscape that meets the criteria above is also a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. In addition, a historical resource described in PRC § 21084.1, a unique archaeological resource as defined in PRC § 21083.2(g), or a "non-unique archaeological resource" as defined in PRC § 21083.2(h) may also be a tribal cultural resource if it conforms with above criteria.

AB 52 requires a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California

Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

Tribal consultation pursuant to AB 52 is discussed in the Existing Setting.

LOCAL

City of Tracy General Plan

The City of Tracy General Plan includes several policies that are relevant to cultural and tribal resources. General Plan policies applicable to the Project are identified below:

POLICIES: COMMUNITY CHARACTER

- CC-3.1-P2. Identified cultural and historical landmarks and buildings shall be preserved.
- CC-3.1-P3: New development, redevelopment, alterations, and remodeling projects should be sensitive to surrounding historic context.
- CC-3.1-P4: As part of the development review process, there shall be a standard condition of approval that if any resources are found during construction, all operations within the project area shall halt until an assessment can be made by appropriate professionals regarding the presence of archaeological and paleontological resources and the potential for adverse impacts on these resources.
- CC-3.1-P5: Any archaeological or paleontological resources on private property shall be either preserved on their sites or adequately documented and conserved as a condition of removal. If any resources are found unexpectedly during development, then construction must cease immediately until accurate study and conservation measures are implemented.
- CC-3.1-P6: If Native American artifacts are discovered on a site, the City shall consult representatives of the Native American community to ensure the respectful treatment of Native American sacred places.

City of Tracy Municipal Code

Tracy Municipal Code Title 9 addresses building regulations. Chapter 9.48 adopts the California Historical Building Code. The purpose of the chapter is to "provide regulations for the preservation, restoration, rehabilitation, relocation, or reconstruction of buildings or structures designated as qualified historical buildings or properties; provide alternative solutions for the preservation of qualified historical buildings or properties, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of occupants or users."

3.5.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project is considered to have a significant impact on cultural or tribal resources if it will:

- Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5;
- Disturb any human remains, including those interred outside of formal cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC § 5020.1(k);
    - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC § 5024.1. In applying the criteria set forth in subdivision (c) of PRC § 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.

IMPACTS AND MITIGATION MEASURES

Impact 3.5-1: Project implementation has the potential to cause a substantial adverse change to a significant historical resource, as defined in CEQA Guidelines §15064.5. (Less than Significant with Mitigation)

Four residences and six buildings used for livestock, processing, and storage are present in the southern half of the Project site, in addition to several small sheds and small animal shelters. Two connected dry ponds are present along the central eastern edge of the property. Aerial photograph summaries indicate that several residences and farm structures potentially date back as early as prior to 1940. As noted previously, one of the residences is abandoned and in need of ample maintenance, both structurally and aesthetically. One of the residences is currently occupied. All of the residences have been renovated and or remodeled multiple times over the decades. The architectural style of the residences are prevalent throughout the city and rural areas in the Central Valley.

A CHRIS search was requested from the CCIC, which included the Project area and a one-half mile radius (CCIC File # 12470L). The results of the CCIC records search indicated that the Project site does not contain any recorded buildings or structures listed on the State Office of Historic Preservation Historic Property Directory (which includes listings of the CRHR, California State Historical Landmarks, California State Points of Historical Interest, and the NRHP). The records

search also noted that the General Land Office Survey Plat does not reference any historic features in the Project site.

As part of the proposed Project, demolition of all on-site structures would be required. Demolition of the existing structures would not result in a noticeable departure from the character of the Project vicinity, and the Project site and vicinity is planned for urban development (largely industrial uses) as part of City planning documents (such as the General Plan and the Cordes Ranch Specific Plan). Additionally, the structures are not known to possess any recognized historical significance and are not known to contribute to the historical character of the vicinity. Therefore, the demolition of the existing residences are not expected to result in a loss of significant historical resources. However, to ensure that the existing residences do not have historic significance, implementation of Mitigation Measure 3.5-1 requires adequate documentation and recordation of the existing residence prior to demolition activities.

While the CCIC records search found no documented features on-site that could be considered a "historical resource" under Section 15064.5 in the CEQA Guidelines, as with most projects in the region, there is also the potential for discovery of previously unknown historical resources during ground disturbing activities. For the above-stated reasons, the Project will be required to implement Mitigation Measures 3.5-1 and 3.5-2 to reduce the potential impact to historical resources. Implementation of these mitigation measures would result in a ***less than significant*** impact on historical resources.

MITIGATION MEASURE(S)

Mitigation Measure 3.5-1: *Prior to the demolition of the existing residential structures, a comprehensive evaluation of the structures shall be conducted to identify and document any aspects of historical significance. This evaluation shall be carried out by qualified professionals in cultural resources management or historic preservation, in accordance with the standards of the California Office of Historic Preservation. The assessment shall include, but not be limited to, an examination of architectural features, historical records, oral histories, and any other relevant sources of information to determine the historical significance of the residential structures. The findings from the assessment shall be recorded and documented in accordance with the standards set forth by the California Office of Historic Preservation. This documentation shall be submitted to the City of Tracy Community Development Department for review and approval prior to the issuance of any permits for demolition.*

In the event that significant historical or cultural resources are identified, appropriate measures shall be implemented in consultation with the project applicant to mitigate any adverse impacts to these resources to the extent feasible. The applicant shall submit a final report summarizing the implementation of this mitigation measure, including any findings, documentation, and compliance verification activities, to the City of Tracy Community Development Department for cultural resources management.

Mitigation Measure 3.5-2: *If any historical resources, cultural resources, including prehistoric or historic artifacts, or other indications of archaeological resources, are found during grading and*

construction activities during any phase of the Project, all work shall be halted immediately within a 200-foot radius of the discovery until an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, has evaluated the find(s).

Work shall not continue at the discovery site until the archaeologist conducts sufficient research and data collection to make a determination that the resource is either 1) not cultural in origin; or 2) not potentially significant or eligible for listing on the NRHP or CRHR; or 3) not a significant Public Trust Resource.

In addition, if the resource(s) identified is cultural or tribal in nature, the Confederated Villages of Lisjan shall be contacted to review and identify the resource, prior to work continuing at the discovery site.

If Native American resources are identified, a Native American monitor, following the Guidelines for Monitors/Consultants of Native American Cultural, Religious, and Burial Sites established by the Native American Heritage Commission, would also be required and, if Native American resources are identified, shall be retained at the Project applicant's expense.

Impact 3.5-2: Project implementation has the potential to cause a substantial adverse change to a significant archaeological resource, as defined in CEQA Guidelines § 15064.5, or a significant tribal cultural resource, as defined in Public Resources Code § 21074. (Less than Significant with Mitigation)

The Project site is located in an area known to have archaeological, cultural, and tribal cultural resources. As noted above, a CHRIS search was requested from the CCIC, which included the project area and a one-half mile radius (CCIC File # 12470L). The results of the record search indicate that the Project site does not contain any formally recorded prehistoric or historic archaeological resources or historic buildings. Three investigations have been conducted that include portions of the Project site. No historic or prehistoric resources have ever been recorded in or in the immediate vicinity of the Project site.

As noted previously, nine tribal representatives were contacted pursuant to SB 18 and AB 52. To date, no responses or request for tribal consultations have been received.. Additionally, as with most projects in the region that involve ground-disturbing activities, there is also the potential for discovery of a previously unknown archaeological resources and cultural resources, including prehistoric or historic artifacts. Implementation of Mitigation Measures 3.5-2 and 3.5-3 would ensure that the potential impact to archaeological, cultural, and tribal resources is ***less than significant***.

MITIGATION MEASURE(S)

*Implement **Mitigation Measure 3.5-2***

Mitigation Measure 3.5-3: *If human remains are discovered during the course of construction during any phase of the Project, work shall be halted at the site and at any nearby area reasonably suspected to overlie adjacent human remains until the San Joaquin County Coroner has been informed and has determined that no investigation of the cause of death is required. If the remains are of Native American origin, either of the following steps will be taken:*

- *The coroner shall contact the Native American Heritage Commission and the Confederated Villages of Lisjan in order to ascertain the Most Likely Descendant (MLD) from the deceased individual. If a MLD is identified, the MLD, with the permission of the owner of the land, or his or her authorized representative, in accordance with the law, may inspect the site discovery site and recommend to the landowner, or his or her representative, means for the treatment or disposition, with appropriate dignity' of the human remains and any associated grave goods. The landowner has no legal obligation to allow the MLD accesses to the property for the purpose of making a recommendation. The MLD must complete their inspection and make their recommendation within 48 hours of their notification by the NAHC. The recommendation may include the scientific removal and analysis of human remains and items associated with Native American burials. The coroner shall make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, which may include obtaining a qualified archaeologist or team of archaeologists to properly excavate the human remains.*
- *The landowner shall retain a Native American monitor, and an archaeologist, if recommended by the Native American monitor, and rebury the Native American human remains and any associated grave goods, with appropriate dignity, on the property and in a location that is not subject to further subsurface disturbance when any of the following conditions occurs:*
    - *The Native American Heritage Commission and Confederated Villages of Lisjan is unable to identify a descendent.*
    - *The descendant identified fails to make a recommendation.*
    - *The City of Tracy or its authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.*

Impact 3.5-3: Project implementation has the potential to disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)

Indications suggest that humans have occupied San Joaquin County for over 10,000 years and it is not always possible to predict where human remains may occur outside of formal burials. Therefore, excavation and construction activities, regardless of depth, may yield human remains that may not be interred in marked, formal burials.

Under CEQA, human remains are protected under the definition of archaeological materials as being “any evidence of human activity.” Additionally, Public Resources Code Section 5097 has

specific stop-work and notification procedures to follow in the event that human remains are inadvertently discovered during Project implementation.

While no human remains are documented on or near the Project site, implementation of the following mitigation measure would ensure that all construction activities which inadvertently discover human remains implement state-required consultation methods to determine the disposition and historical significance of any discovered human remains. The following mitigation measure would reduce this impact to a ***less-than-significant*** level.

MITIGATION MEASURE(S)

Implement ***Mitigation Measure 3.5-3.***

The purpose of this section is to disclose and analyze the potential impacts associated with the geology of the Project site and regional vicinity, and to analyze issues such as the potential exposure of people and property to geologic hazards, landform alteration, and erosion, as well as potential impacts to paleontological resources and unique geological units. This section is based in part on the following: the *San Joaquin County General Plan* (San Joaquin County, 2016), *City of Tracy General Plan* (City of Tracy, 2011), *City of Tracy General Plan EIR* (City of Tracy, 2011), *Custom Soils Report for San Joaquin County, California* (NRCS, 2019), *Natural Resources Conservation Service* (NRCS) *Web Soil Survey* (NRCS, 2023), *California Earthquake Hazards Zone Application* provided by the California Department of Conservation (DOC, 2023), *Preliminary Geotechnical Engineering Study – Proposed New One- Story Warehouse Building, 16286 W. Schulte Road [APN: 209-280-250], Tracy, California* (Condor Earth Technologies, Inc., 2020) (Appendix L of this EIR), and the *West Schulte Road Warehouse Project Preliminary Geotechnical Engineering Report* (Wallace-Kuhl & Associates, 2022) (Appendix D of this EIR).

No comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic. Full comments received are included in Appendix A.

As discussed in the Initial Study, the proposed Project would connect to the municipal sewer system for wastewater disposal and septic tanks, or septic systems are not proposed as part of the Project. Additionally, the Project site is not designated as a Mineral Resource Zone (MRZ) and there are no significant deposits of mineral resources located on the Project site, as delineated by the Mineral Resources and Mineral Hazards Mapping Program (MRMHMP). No impact in these areas would occur. These CEQA topics will not be addressed further in this EIR. The Initial Study is included in Appendix A.

3.6.1 ENVIRONMENTAL SETTING

GEOLOGIC SETTING

Regional Geology

The Project site lies in the San Joaquin Valley (Valley) in central California. The Valley is located in the southern portion of the Great Valley Geomorphic Province. The Great Valley, also known as the Central Valley, is a topographically flat, northwest-trending, structural trough (or basin) about 50 miles wide and 450 miles long. It is bordered by the Tehachapi Mountains on the south, the Klamath Mountains on the north, the Sierra Nevada on the east, and the Coast Ranges on the west.

The San Joaquin Valley is filled with thick sedimentary rock sequences that were deposited as much as 130 million years ago. Large alluvial fans have developed on each side of the Valley. The larger and more gently sloping fans are located on the east side of the Valley, and overlie metamorphic and igneous basement rocks. These basement rocks are exposed in the Sierra Nevada foothills and consist of meta-sedimentary, volcanic, and granitic rocks.

Local Setting

As described in Chapter 2.0, Project Description, the Project site includes two distinct planning boundaries, including the 21.92-acre Annexation Area (or Project site) and the 20.92-acre Development Area. The 21.92-acre Annexation Area encompasses the total Project site while the 20.92-acre Development Area encompasses the portion of the Project site proposed for development.

The Project site is relatively flat and encompasses undeveloped land in the north and residential land in the south that is currently developed with three single-family residences and six ancillary structures. The Project site is surrounded by a variety of undeveloped and developed land uses. The project site is bound by Hansen Road to the west, West Schulte Road to the north, the Delta Mendota Canal to the south, and a private driveway and vacant land on the east. Surrounding land uses include the Cal Fire Station 26 and vacant land to the west, vacant land previously used for agricultural uses to the east, two industrial warehouses to the north, and the Delta Mendota Canal and agricultural land to the south. The area north of the project site is part of the Cordes Ranch Specific Plan. The Delta Mendota Canal is a nearly 120-mile-long aqueduct that is part of the Central Valley Project. Its function is to restore water to the San Joaquin River drainage that has been diverted at upstream locations to the southeast, notably, the Friant Dam located roughly 15 miles northeast of Fresno.

A Custom Soil Survey was completed for the Project site using the NRCS Web Soil Survey program. The NRCS Soils Map is provided in Figure 3.6-1. As shown in Figure 3.6-1, Capay clay is the only soil type within the Project site. The Capay series consists of very deep, moderately well and somewhat poorly drained soils that formed in fine textured alluvium derived from mostly sandstone and shale. Capay soils are on flood basins, alluvial fans, interfan basins and basin rims. They formed in fine textured alluvium derived from sandstone and shale or other mixed rock sources. Slopes are 0 to 15 percent. They have a moderately well and somewhat poor drainage and a slow to very slow permeability. Common uses for this series include: growing irrigated crops such as tomatoes, sugar beets, beans or grain sorghum, dry farmed to small grains, and irrigated and dryland pasture. Native vegetation is a dense stand of annual grasses and forbs. As shown in Figure 3.6-1, this soil type is located throughout the entire Project site.

As part of the Preliminary Geotechnical Engineering Study (Condor Earth Technologies, Inc., 2020) (Appendix L) completed for the Project, subsurface conditions were explored by means of four borings ranging in depth from 16.5 to 26.5 feet below existing grade. Based on the soil borings, the native soils consist of stiff lean clay and sandy lean clay (CL) of medium plasticity ranging from three to seven feet thick underlain by firm to very stiff silt underlain by medium dense to dense sand and clayey sand. Laboratory testing of near-surface soils resulted in Plasticity Indices (PI) ranging from 17 to 28. The amount of fine sand in the lean clays varies throughout the site as well. This indicates the soils are low to moderately expansive when subjected to fluctuations in moisture content.

FAULTS AND SEISMICITY

Faults

A fault is a fracture in the crust of the earth along which rocks on one side have moved relative to those on the other side. A fault trace is the line on the earth's surface defining the fault. Displacement of the earth's crust along faults releases energy in the form of earthquakes and in some cases in fault creep. Most faults are the result of repeated displacements over a long period of time.

Surface rupture occurs when movement on a fault deep within the earth breaks through to the surface. Surface ruptures have been known to extend up to 50 miles with displacements of an inch to 20 feet. Fault rupture almost always follows preexisting faults, which are zones of weakness. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures because they are accompanied by shaking.

The State of California designates faults as active, potentially active, and inactive depending on how recent the movement that can be substantiated for a fault. Table 3.6-1 presents the California fault activity rating system.

TABLE 3.6-1: FAULT ACTIVITY RATING

FAULT ACTIVITY RATING	*GEOLOGIC PERIOD OF LAST RUPTURE*	*TIME INTERVAL (YEARS)*
Active (A)	Holocene	Within last 11,000 years
Potentially Active (PA)	Quaternary	11,000-1.6 Million Years
Inactive (I)	Pre-Quaternary	Greater than 1.6 Million

SOURCE: CALIFORNIA GEOLOGICAL SURVEY

According to the *Preliminary Geotechnical Engineering Report* (Wallace-Kuhl & Associates, 2022) prepared for the Project, surface evidence of faulting during the site reconnaissance was not observed. Figure 3.6-2 provides a map of known nearby faults in relation to the Project site. While no faults cross the Project site, relatively large earthquakes have historically occurred in the Bay Area and along the margins of the Central Valley. The nearest earthquake fault zoned as active by the State of California Geological Survey is the Black Butte Fault, located approximately 1.1 miles to the south of the site. However, the Black Butte fault is not considered an active fault that would trigger evaluation under the Alquist-Priolo Earthquake Fault Zoning Act. Other active and potentially active faults near the Project site include the Midway fault (2.3 miles west), the Corral Hollow-Carnegie fault zone (6.1 miles southwest), and the San Joaquin fault (5.7 miles southeast of the site).

Seismicity

The amount of energy available to a fault is determined by considering the slip-rate of the fault, its area (fault length multiplied by down-dip width), maximum magnitude, and the rigidity of the displaced rocks. These factors are combined to calculate the moment (energy) release on a fault. The total seismic energy release for a fault source is sometimes partitioned between two different recurrence models, the characteristic and truncated Gutenberg-Richter (G-R) magnitude-

frequency distributions. These models incorporate our knowledge of the range of magnitudes and relative frequency of different magnitudes for a particular fault. The partition of moment and the weights for multiple models are given in the following summary.

Earthquakes are generally expressed in terms of intensity and magnitude. Intensity is based on the observed effects of ground shaking on people, buildings, and natural features. By comparison, magnitude is based on the amplitude of the earthquake waves recorded on instruments, which have a common calibration. The Richter scale, a logarithmic scale ranging from 0.1 to 9.0, with 9.0 being the strongest, measures the magnitude of an earthquake relative to ground shaking. Table 3.6-2 provides a description and a comparison of intensity and magnitude.

TABLE 3.6-2: MODIFIED MERCALLI INTENSITY SCALE FOR EARTHQUAKES

RICHTER MAGNITUDE	*MODIFIED MERCALLI*	*EFFECTS OF INTENSITY*
0.1 – 0.9	I	Earthquake shaking not felt.
1.0 – 2.9	II	Shaking felt by those at rest.
3.0 – 3.9	III	Felt by most people indoors, some can estimate duration of shaking.
4.0 – 4.5	IV	Felt by most people indoors. Hanging objects rattle, wooden walls and frames creak.
4.6 – 4.9	V	Felt by everyone indoors, many can estimate duration of shaking. Standing autos rock. Crockery clashes, dishes rattle and glasses clink. Doors open, close and swing.
5.0 – 5.5	VI	Felt by all who estimate duration of shaking. Sleepers awaken, liquids spill, objects are displaced, and weak materials crack.
5.6 – 6.4	VII	People frightened and walls unsteady. Pictures and books thrown, dishes and glass are broken. Weak chimneys break. Plaster, loose bricks and parapets fall.
6.5 – 6.9	VIII	Difficult to stand. Waves on ponds, cohesionless soils slump. Stucco and masonry walls fall. Chimneys, stacks, towers, and elevated tanks twist and fall.
7.0 – 7.4	IX	General fright as people are thrown down, hard to drive. Trees broken, damage to foundations and frames. Reservoirs damaged, underground pipes broken.
7.5 – 7.9	X	General panic. Ground cracks, masonry and frame buildings destroyed. Bridges destroyed, railroads bent slightly. Dams, dikes and embankments damaged.
8.0 – 8.4	XI	Large landslides, water thrown, general destruction of buildings. Pipelines destroyed, railroads bent.
8.5 +	XII	Total nearby damage, rock masses displaced. Lines of sight/level distorted. Objects thrown into air.

SOURCE: UNITED STATES GEOLOGICAL SURVEY

According to the California Geological Survey's Probabilistic Seismic Hazard Assessment Program, San Joaquin County is considered to be within an area that is predicted to have a 10 percent probability that a seismic event would produce horizontal ground shaking of 10 to 20 percent within a 50-year period. This level of ground shaking correlates to a Modified Mercalli intensity of V to VII, light to strong.

Alquist-Priolo Special Study Zone

The California legislature passed the Alquist-Priolo Special Studies Zone Act in 1972 to address seismic hazards associated with faults and to establish criteria for developments for areas with

identified seismic hazard zones. The California Geologic Survey (CGS) evaluates faults with available geologic and seismologic data and determines if a fault should be zoned as active, potentially active, or inactive. If CGS determines a fault to be active, then it is typically incorporated into a Special Studies Zone in accordance with the Alquist-Priolo Earthquake Hazard Act. Alquist-Priolo Special Study Zones are usually one-quarter mile or less in width and require site-specific evaluation of fault location and require a structure setback if the fault is found traversing a Project site.

As shown in Figure 3.6-2, the Project site is not within an Alquist-Priolo Special Study Zone. The nearest Alquist-Priolo fault zone, the Greenville fault zone, is located approximately 8.5 miles southwestern of the Project site.

SEISMIC HAZARDS

Seismic Ground Shaking

The potential for seismic ground shaking in California is expected. As a result of the foreseeable seismicity in California, the State requires special design considerations for all structural improvements in accordance with the seismic design provisions in the California Building Code. These seismic design provisions require enhanced structural integrity based on several risk parameters. Seismic ground shaking in the Project site is expected during the life of the proposed Project. All structures will be built in accordance with the California Building Code's seismic design standards.

Fault Rupture

A fault rupture occurs when the surface of the earth breaks as a result of an earthquake, although this does not happen with all earthquakes. These ruptures generally occur in a weak area of an existing fault. Ruptures can be sudden (i.e. earthquake) or slow (i.e. fault creep). The Alquist-Priolo Fault Zoning Act requires active earthquake fault zones to be mapped and it provides special development considerations within these zones. The Project site does not have surface expression of active faults and fault rupture is not anticipated.

Liquefaction

Liquefaction typically requires a significant sudden decrease of shearing resistance in cohesionless soils and a sudden increase in water pressure, which is typically associated with an earthquake of high magnitude. Under certain circumstances, the ground shaking can temporarily transform an otherwise solid material to a fluid state. Liquefaction is a serious hazard because buildings in areas that experience liquefaction may subside and suffer major structural damage. Liquefaction is most often triggered by seismic shaking, but it can also be caused by improper grading, landslides, or other factors. The potential for liquefaction is highest when groundwater levels are high, and loose, fine, sandy soils occur at depths of less than 50 feet.

The potential for liquefaction is greater in certain geologic and hydrologic environments that may be characterized by loosely consolidated, silty sediments together with shallow groundwater.

Based upon the results of the subsurface exploration from the Preliminary Engineering Geotechnical Report (Wallace-Kuhl & Associates, 2022), as well as the known site, geologic, seismologic, and groundwater and soil conditions, the potential for liquefaction occurring at this site is relatively low. Additionally, according to the Preliminary Geotechnical Engineering Study (Condor Earth Technologies, Inc., 2020) (Appendix L) completed for the Project, liquefaction is not considered a risk at the Project site.

To date, the CGS Seismic Hazards Zonation Program has not identified any seismically-induced liquefaction zones in the City of Tracy or the Project site. Additionally, the Tracy General Plan EIR identifies the majority of the Tracy Planning Area as low risk for liquefaction, including the Project site, with the exception for the river banks within the Tracy Planning Area.

Therefore, the potential for liquefication within the Project site is low.

Lateral Spreading

Lateral spreading typically results when ground shaking moves soil toward an area where the soil integrity is weak or unsupported, and it typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Oftentimes, lateral spreading is directly associated with areas of liquefaction. Because the potential for liquefaction is low on-site, the potential for lateral spreading is also considered low.

Landslides

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e., cut and fill). The Project site is essentially flat; therefore, the potential for a landslide in the Project site is non-existent.

NON-SEISMIC HAZARDS

Expansive Soils

Expansive soils can undergo significant volume change with changes in moisture content, such as a result of seasonal rain events, and can cause damage to foundations, concrete slabs, roadway improvements, and pavement sections. The soils shrink and harden when dried and expand and soften when wet. If structures are underlain by expansive soils, it is important that foundation systems be capable of tolerating or resisting any potentially damaging soil movements. In addition, it is important to limit moisture changes in the surficial soils by using positive drainage away from buildings as well as limiting landscaping watering.

Expansion is a typical characteristic of clay-type soils. The more clayey, critically expansive surface soil and fill materials will be subjected to volume changes during seasonal fluctuations in moisture content. As indicated in the Tracy General Plan EIR, Tracy does have a moderate to high risk for expansive soils, depending on the location and soil type. Based upon the results of the Preliminary Engineering Geotechnical Report (Wallace-Kuhl & Associates, 2022) and the *Preliminary*

Geotechnical Engineering Study (Condor Earth Technologies, Inc., 2020), due to the anticipated clay soils present throughout the site, laboratory testing should be performed on near-surface subgrade soils during design level geotechnical exploration and testing to further evaluate the impact of potentially expansive soils that may be encountered at the site.

Erosion

Erosion naturally occurs on the surface of the earth as surface materials (i.e., rock, soil, debris, etc.) are loosened, dissolved, or worn away, and transported from one place to another by gravity. Two common types of soil erosion include wind erosion and water erosion. The steepness of a slope is an important factor that affects soil erosion. Erosion potential in soils is influenced primarily by loose soil texture and steep slopes. Loose soils can be eroded by water or wind forces, whereas soils with high clay content are generally susceptible only to water erosion. The potential for erosion generally increases as a result of human activity, primarily through the development of facilities and impervious surfaces and the removal of vegetative cover.

Because the Project site contains high clay content surface soils, the Project site would potentially be subject to water erosion. As previously mentioned, a Custom Soil Survey was completed for the Project site using the NRCS Web Soil Survey program, which identified the erosion factor K for on-site soils. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. Within the Project site, the erosion factor Kf is 0.24, which is considered a moderate potential for erosion.

Collapsible Soils

Collapsible soils undergo a rearrangement of their grains and a loss of cementation, resulting in substantial and rapid settlement under relatively low loads. Collapsible soils occur predominantly at the base of mountain ranges, where Holocene-age alluvial fan and wash sediments have been deposited during rapid run-off events. Soils prone to collapse are commonly associated with manmade fill, wind-laid sands and silts, and alluvial fan and mudflow sediments deposited during flash floods. During an earthquake, even slight settlement of fill materials can lead to a differentially settled structure and significant repair costs. Differential settlement of structures typically occurs when heavily irrigated landscape areas are near a building foundation. Examples of common problems associated with collapsible soils include tilting floors, cracking or separation in structures, sagging floors, and nonfunctional windows and doors. Collapsible soils have not been identified in the Tracy General Plan EIR or the Project-specific Preliminary Engineering Geotechnical Report (Wallace-Kuhl & Associates, 2022) as an issue in the Tracy area.

Subsidence

Land subsidence is the gradual settling or sinking of an area with little or no horizontal motion due to changes taking place underground. It is a natural process, although it can also occur (and is greatly accelerated) as a result of human activities. Common causes of land subsidence from human activity include: pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial

wetting of dry soils. Typically, significant subsidence occurs only in areas underlain by soft soils such as marsh deposits or in areas susceptible to liquefaction. According to the Tracy General Plan EIR, area subsidence potential has not been documented in the Tracy Planning Area. The Preliminary Engineering Geotechnical Report (Wallace-Kuhl & Associates, 2022) and the Preliminary Geotechnical Engineering Study (Condor Earth Technologies, Inc., 2020) do not identify the subsidence potential of the site. Overall, the subsidence potential on-site is considered low.

PALEONTOLOGICAL RESOURCES

There are several rock formations in the Tracy area that could be indicators of potential paleontological resources. These include the Neroly Formation, Moreno Shale deposits, and Panoche Formations. However, these rock formations do not constitute a unique geologic feature.

According to a records search of the University of California Museum of Paleontology (UCMP) Collections Date, eighty fossils have been found and recorded within San Joaquin County. Over half of them are dated to the tertiary period, with quaternary being the second most frequent period. These are the first and second periods of the Cenozoic Era respectively, during which modern flora, apes, large mammals, and eventually humans developed. The majority of fossils found within the Tracy area have been vertebrate in nature. According to the Cordes Ranch Specific Plan EIR, the UCMP database lists five localities in the Specific Plan Area, located north of the Project site, where Pleistocene vertebrate finds were made in 1948 during construction of the Delta Mendota Canal. These fossils include mammoth/mastodon, horse, pocket gopher, and other unspecified rodents, and unidentified artiodactyl (hoofed mammal) bone.

3.6.2 REGULATORY SETTING

FEDERAL

Uniform Building Code

The purpose of the Uniform Building Code (UBC) is to provide minimum standards to preserve the public peace, health, and safety by regulating the design, construction, quality of materials, certain equipment, location, grading, use, occupancy, and maintenance of all buildings and structures. UBC standards address foundation design, shear wall strength, and other structurally related conditions.

STATE

The State of California has established a variety of regulations and requirements related to seismic safety and structural integrity, including the California Building Code, the Alquist-Priolo Earthquake Fault Zoning Act and the Seismic Hazards Mapping Act.

California Building Standards Code

Title 24 of the California Code of Regulations, known as the California Building Standards Code (CBSC) or "Title 24," contains the regulations that govern the construction of buildings in California. The CBSC includes 12 parts including: California Building Standards Administrative Code,

California Building Code, California Residential Building Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Historical Building Code, California Fire Code, California Existing Building Code, California Green Building Standards Code (CALGreen Code), and California Reference Standards Code. Through the CBSC, the state provides a minimum standard for building design and construction. The CBSC contains specific requirements for seismic safety, excavation, foundations, retaining walls and site demolition. It also regulates grading activities, including drainage and erosion control.

California Building Code

The California Building Code, Title 24, Part 2, Chapter 16 addresses structural design, Chapter 17 addresses structural tests and special inspections, and Chapter 18 addresses soils and foundations. Section 1610 provides structural design standards for foundation walls and retaining walls to ensure resistance to lateral soil loads. Section 1613 provides structural design standards for earthquake loads. Section 1704.7 requires special inspections for existing site soil conditions, fill placement and load-bearing requirements during the construction as specified in Table 1704.7 of this section. Sections 1704.8 through 1704.16 provide inspection and testing requirements for various foundation types, and construction material types. Section 1803.1.1.1 requires each city and county enact an ordinance which requires a preliminary soil report and that the report be based upon adequate test borings or excavations, of every subdivision, where a tentative and final map is required pursuant to Section 66426 of the Government Code. Section 1803.5.3 defines expansive soils and specifies that in areas likely to have expansive soil, the building official shall require soil tests to determine where such soils do exist. Section 1803.5.4 specifies that a subsurface soil investigation must be performed to determine whether the existing ground-water table is above or within 5 feet (1524 mm) below the elevation of the lowest floor level where such floor is located below the finished ground level adjacent to the foundation. Section 1803.5.8 provides specific standards where shallow foundations will bear on compacted fill material more than 12 inches (305 mm) in depth. Section 1803.5.11 and 1803.5.12 provide requirements for geotechnical investigations for structures assigned varying Seismic Design Categories in accordance with Section 1613. Section 1804 provides standards and requirements for excavation, grading, and fill. Section 1808, 1809, and 1810 provides standards and requirements for the construction of varying foundations.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 sets forth the policies and criteria of the State Mining and Geology Board, which governs the exercise of governments' responsibilities to prohibit the location of developments and structures for human occupancy across the trace of active faults. The policies and criteria are limited to potential hazards resulting from surface faulting or fault creep within Earthquake Fault Zones, as delineated on maps officially issued by the State Geologist. Working definitions include:

- Fault – a fracture or zone of closely associated fractures along which rocks on one side have been displaced with respect to those on the other side;

- Fault Zone – a zone of related faults, which commonly are braided and sub parallel, but may be branching and divergent. A fault zone has a significant width (with respect to the scale at which the fault is being considered, portrayed, or investigated), ranging from a few feet to several miles;
- Sufficiently Active Fault – a fault that has evidence of Holocene surface displacement along one or more of its segments or branches (last 11,000 years); and
- Well-Defined Fault – a fault whose trace is clearly detectable by a trained geologist as a physical feature at or just below the ground surface. The geologist should be able to locate the fault in the field with sufficient precision and confidence to indicate that the required site-specific investigations would meet with some success.

"Sufficiently Active" and "Well Defined" are the two criteria used by the State to determine if a fault should be zoned under the Alquist-Priolo Act.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, passed in 1990, addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically-induced landslides. Under the Act, seismic hazard zones are to be mapped by the State Geologist to assist local governments in land use planning. The program and actions mandated by the Seismic Hazards Mapping Act closely resemble those of the Alquist-Priolo Earthquake Fault Zoning Act (which addresses only surface fault-rupture hazards) and are outlined below:

The State Geologist is required to delineate the various "seismic hazard zones."

- Cities and Counties, or other local permitting authority, must regulate certain development "projects" within the zones. They must withhold the development permits for a site within a zone until the geologic and soil conditions of the site are investigated and appropriate mitigation measures, if any, are incorporated into development plans.
- The State Mining and Geology Board provides additional regulations, policies, and criteria, to guide cities and counties in their implementation of the law. The Board also provides guidelines for preparation of the Seismic Hazard Zone Maps and for evaluating and mitigating seismic hazards.
- Sellers (and their agents) of real property within a mapped hazard zone must disclose that the property lies within such a zone at the time of sale.

LOCAL

City of Tracy General Plan

The City of Tracy General Plan includes several policies that are relevant to geological hazards and soils. General Plan policies applicable to the Project are identified below:

POLICIES: SAFETY ELEMENT

- SA-1.1-P1. Underground utilities, particularly water and natural gas mains, shall be designed to withstand seismic forces.
- SA-1.1-P2. Geotechnical reports shall be required for development in areas where potentially serious geologic risks exist. These reports should address the degree of hazard, design parameters for the project based on the hazard, and appropriate mitigation measures.
- SA-1.2-P1. All construction in Tracy shall conform to the California Building Code and the Tracy Municipal Code including provisions addressing unreinforced masonry buildings.

City of Tracy Municipal Code

In accordance with Tracy Municipal Code Title 9, Chapter 9.04, Section 9.04.030, the City has adopted the 2010 California Building Code (CBC), Volumes 1 and 2, by reference. As previously noted, the CBC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition.

3.6.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on geology and soils if it will:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;
    - Strong seismic ground shaking;
    - Seismic-related ground failure, including liquefaction;
    - Landslides;
- Result in substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

IMPACTS AND MITIGATION MEASURES

Impact 3.6-1: The proposed Project would not cause substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, strong seismic ground shaking, seismic related ground failure (including liquefaction), or landslides. (Less than Significant)

GROUND RUPTURE

The Project site is not within an Alquist-Priolo Special Study Zone. The nearest earthquake fault zoned as active by the CGS is the Black Butte Fault, located approximately 1.1 miles to the south of the Project site. However, this fault is not considered an active fault that would trigger evaluation under the Alquist-Priolo Earthquake Fault Zoning Act. Therefore, because no faults are located on the Project sites, the potential for ground rupture (cracking or breaking of the ground during an earthquake) would be less than significant.

GROUND SHAKING

Tracy is considered to be within an area that is predicted to have a 10 percent probability that a seismic event would produce horizontal ground shaking of 10 to 20 percent within a 50-year period. This level of ground shaking correlates to a Modified Mercalli intensity of V to VII, light to strong. Further, the City and the Project site are located within an area of California considered a seismic hazard zone. According to the Preliminary Engineering Geotechnical Report (Wallace-Kuhl & Associates, 2022) prepared for the Project, the proposed Project is geotechnically feasible, and structures designed to meet the requirements of the California Building Code would be capable of withstanding potential seismic shaking that may occur.

To reduce the impact of seismic ground shaking on the development, the Project would be required to be constructed using standard engineering and seismic safety design techniques of the California Building Code, consistent with General Plan Policy SA-1.2-P1. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures would be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Design in accordance with these standards and policies would ensure that this impact is less than significant.

LIQUEFICATION

The Tracy Planning Area, including the Project site, is at low risk for liquefaction. The Preliminary Engineering Geotechnical Report prepared for the Project notes the typical soil profile for a Capay clay consists of clay soils from surface down to a depth of 60 inches. Based on the available groundwater data, regional groundwater beneath the site is generally present at a depth greater

than 50 feet below the existing ground surface. As such, based upon the results of the subsurface exploration completed as part of the Preliminary Engineering Geotechnical Report (Wallace-Kuhl & Associates, 2022), the known site geologic, seismologic, groundwater and soil conditions, the potential for liquefaction occurring at this site is relatively low. In conclusion, the potential for liquefaction on site would be low, resulting in a less-than-significant impact.

LANDSLIDES

The Project site is essentially flat; therefore, the potential for a landslide in the Project site is non-existent. Some limited potential for slope instability risk could arise during grading and construction activities, where slopes could be over-steepened. However, this risk is mitigated by adhering to relevant California Building Code requirements. Additionally, according to the CGS Information Warehouse: Regulatory Maps, the site is not located within a Landslide and Liquefication Zone. As a result, the probability of landslides causing substantial adverse effects on people or structures low, and this impact is less than significant.

CONCLUSION

A Preliminary Engineering Geotechnical Report (Wallace-Kuhl & Associates, 2022) was prepared to describe the nature and general engineering characteristics of the anticipated soil and groundwater conditions at the site and to provide preliminary findings, conclusions, and geotechnical recommendations regarding the feasibility of developing the site with a warehouse building and associated parking and drive aisles. According to the Preliminary Engineering Geotechnical Report (Wallace-Kuhl & Associates, 2022), concerns related to ground rupture, ground shaking, liquefication, or landslides were not identified; refer to the discussion below regarding expansive soils. Additionally, according to the Preliminary Geotechnical Engineering Study (Condor Earth Technologies, Inc., 2020) (Appendix L) completed for the Project, liquefaction is not considered a risk at the Project site. As described above, the Project would be required to be constructed using standard engineering and seismic safety design techniques of the California Building Code, which would reduce any potential impact to a less than significant level. Because development in the Project site must be designed in conformance with these state and local standards and policies, any potential impact would be considered ***less than significant***.

Impact 3.6-2: Implementation and construction of the proposed Project has the potential to result in substantial soil erosion or the loss of topsoil (Less than Significant)

Based on the soil borings completed as part of the Preliminary Geotechnical Engineering Study (Condor Earth Technologies, Inc., 2020), the native soils consist of stiff lean clay and sandy lean clay (CL) of medium plasticity ranging from three to seven feet thick underlain by firm to very stiff silt underlain by medium dense to dense sand and clayey sand.; therefore, the Project site would potentially be subject to water erosion. The Custom Soil Survey identified the Project site as having a moderate potential for erosion. Further, there is the potential for human caused erosion associated with construction activities or through the operational phase of a project. Grading, excavation, removal of vegetation cover, and loading activities associated with construction activities temporarily expose soils and increase the potential for soil erosion and sedimentation

during rain events. Construction activities can also result in soil compaction and wind erosion effects that can adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

As discussed in the Hydrology and Water Quality Section of the Initial Study, the proposed Project would not result in substantial erosion or siltation on- or off-site. In accordance with the NPDES Stormwater Program, an approved Stormwater Pollution Prevention Plan (SWPPP) is required. The SWPPP is designed to control erosion and the loss of topsoil to the extent practicable using Best Management Practices (BMPs) that the Regional Water Quality Control Board (RWQCB) has deemed effective in controlling erosion, sedimentation, runoff during construction activities. Such BMPs may include: temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other ground cover. The RWQCB has stated that these erosion control measures are only examples of what should be considered and should not preclude new or innovative approaches currently available or being developed. The BMPs and overall SWPPP is reviewed by the RWQCB as part of the permitting process. The SWPPP, once approved, is kept on-site and implemented during construction activities and must be made available upon request to representatives of the RWQCB and/or the lead agency. Therefore, through compliance with the NPDES and SWPPP requirements, the proposed project would result in a ***less than significant*** impact relative to this topic.

Impact 3.6-3: The proposed Project has the potential to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of Project implementation, and potentially result in landslide, lateral spreading, subsidence, liquefaction or collapse. (Less than Significant with Mitigation)

LANDSLIDE AND LIQUEFACTION

As discussed in Impact 3.6-1, the Project site is essentially flat and has not been identified as being located within a seismically-induced liquefaction or landslide zone. Therefore, the probability of a landslide or liquefication on the Project site is considered low.

LATERAL SPREADING

Oftentimes, lateral spreading is directly associated with areas of liquefaction. The Project Site is essentially flat and has not been identified as being located within any liquefaction zone. Coupled with the low groundwater table generally greater than 50 feet bgs, the potential for liquefaction is low. For these reasons, generally the probability of lateral spreading occurring on the Project site is considered low.

COLLAPSIBLE SOILS

Collapsible soils have not been identified in the Tracy General Plan EIR as an issue in the Tracy area; therefore, the probability of collapsible soils occurring on the Project site is considered low.

SUBSIDENCE

Land subsidence is the gradual settling or sinking of an area with little or no horizontal motion due to changes taking place underground. Subsidence has not been identified in the Tracy General Plan EIR as an issue in the Tracy area. Therefore, the probability of subsidence occurring on the Project site is considered low.

CONCLUSION

The Project site does not have a significant risk of becoming unstable as a result landslide, subsidence, or soil collapse. There is a low potential for liquefaction, liquefaction induced settlement, and lateral spreading. As described above, the Preliminary Engineering Geotechnical Report (Wallace-Kuhl & Associates, 2022) determined development of the Project is geotechnically feasible. The Project would be required to be constructed using standard engineering and seismic safety design techniques of the California Building Code, which would further ensure impacts associated with unstable geologic and soil conditions are not significant. Additionally, the Project would be required to comply with California Building Code Title 24, Part 2, Chapter 18, Section 1803.1.1.2, which requires a final geotechnical evaluation be prepared and design recommendations identified to address any soil conditions within the Project site.

According to the Preliminary Engineering Geotechnical Report (Wallace-Kuhl & Associates, 2022), hazardous and unstable soils are not currently found on-site. However, the Report includes preliminary recommendations regarding clearing of existing buildings, building support and foundations, excavation, expansive soils, engineered fill, seasonal moisture, site drainage, and pavement design. Implementation of recommendations identified by the final geotechnical evaluation conducted for the Project site, as required by Mitigation Measure 3.6-1, would reduce potential impacts associated with unstable geology and soils conditions and impacts would be considered ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.6-1*: All site preparation, grading operations, and construction design shall be conducted in conformance with the recommendations included in the Preliminary Geotechnical Engineering Study – Proposed New One-Story Warehouse Building, 16286 W. Schulte Road [APN: 209-280-250], Tracy, California (Condor Earth Technologies, Inc., 2020). Specific recommendations in the Geotechnical Engineering Report generally address the following:*

1. *General grading and site preparation;*
2. *Overexcavation;*
3. *Subgrade Preparation;*
4. *Fill materials;*
5. *Engineered fill placement;*
6. *Lime treatment;*
7. *Excavations;*
8. *Earthwork shrinkage;*

9. *Underground utility trenches;*
10. *Surface drainage control;*
11. *General foundation;*
12. *Shallow foundation design*
13. *Lateral resistance;*
14. *Construction considerations;*
15. *Interior concrete slabs;*
16. *Exterior concrete slabs;*
17. *Retaining walls;*
18. *Pavements;*
19. *Corrosion potential.*

Additional site testing and final design evaluation shall be conducted by the Project Geotechnical Consultant to refine and enhance these requirements as part of a final Geotechnical Evaluation. The Project Applicant/Developer shall require the Project Geotechnical Consultant to assess whether the requirements in that report need to be modified or refined to address any changes in the Project features that occur prior to the start of grading. If the Project Geotechnical Consultant identifies modifications or refinements to the requirements, the Project Applicant/Developer shall require appropriate changes to the final Project design and specifications. These requirements shall be incorporated into the final Geotechnical Evaluation.

Impact 3.6-4: The proposed Project has the potential for expansive soils to create substantial risks to life or property. (Less than Significant with Mitigation)

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. According to the Preliminary Engineering Geotechnical Report (Wallace-Kuhl & Associates, 2022), the near surface clay soils in the Project site exhibit expansion characteristics. Laboratory testing should be performed on near-surface subgrade soils during design level geotechnical exploration and testing to further evaluate the impact of potentially expansive soils that may be encountered at the site. According to the Preliminary Geotechnical Engineering Study (Condor Earth Technologies, Inc., 2020), Laboratory testing of near-surface soils resulted in Plasticity Indices (PI) ranging from 17 to 28. The amount of fine sand in the lean clays varies throughout the site as well. The soils are low to moderately expansive when subjected to fluctuations in moisture content. Therefore, measures to reduce potentially significant impacts related to expansive site soils would be necessary. Measures may include importing non-expansive fill for placement over the subgrade (in fill areas), removing and replacing with non-expansive fill at subgrade level, or using cement or lime treating the upper 12 to 18 inches of the subgrade. In addition, due to the tendency of expansive clays to swell and heave, site drainage would need to be directed away from building footprints to minimize moisture and volume change underneath floor slabs or foundations.

As discussed in Impact 3.6-3, the California Building Code Title 24, Part 2, Chapter 18, Section 1803.1.1.2 requires specific geotechnical evaluation when a preliminary geotechnical evaluation

determines that expansive or other special soil conditions are present, which, if not corrected, would lead to structural defects. The City of Tracy also requires a geotechnical evaluation be prepared for developments in areas where potentially serious geologic risks exist, such as expansive soils, that address the degree of hazard, design parameters for the project based on the hazard, and appropriate measures be incorporated into the overall design and construction. Pursuant to these existing statutory requirements, a final geotechnical evaluation will be required for the Project.

Mitigation Measure 3.6-1 requires the incorporation of and compliance with the recommendations in the Preliminary Geotechnical Engineering Study (Condor Earth Technologies, Inc., 2020),. For example, engineered fill should be placed in a series of horizontal layers not exceeding 8 inches in loose thickness, uniformly moisture-conditioned, and compacted to achieve a minimum relative compaction of 90 percent of the ASTM D1557 maximum dry density. Non-expansive fill soils should be uniformly moisture conditioned to between 1 and 3 percentage points above the optimum moisture content. Fill soils composed of the documented non-engineered fill and native clays should be uniformly moisture conditioned to between 3 and 5 percentage points above the optimum moisture content. Implementation of recommendations identified by the final geotechnical evaluation conducted for the Project site, as required by Mitigation Measure 3.6-1, would reduce potential impacts associated with unstable geology and soils conditions and impacts would be considered ***less than significant***.

MITIGATION MEASURE(S)

*Implement **Mitigation Measure 3.6-1**.*

Impact 3.6-5 The proposed Project has the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Less than Significant with Mitigation)

The Project site is located in an area known to have paleontological resources. As previously mentioned, the Cordes Ranch Specific Plan EIR, prepared for the 1,780-acres north of the Project site, indicated the UCMP database lists five localities north of the Project site, specifically, where Pleistocene vertebrate finds were found in 1948 during construction of the Delta Mendota Canal. These fossils include mammoth/mastodon, horse, pocket gopher, and other unspecified rodents, and unidentified artiodactyl (hoofed mammal) bone. Because the Delta Mendota Canal borders the southern boundary of the Project site, ground disturbing activities have the potential to reveal previously unknown significant paleontological resources, resulting in a potentially significant impact to paleontological resources or unique geologic features.

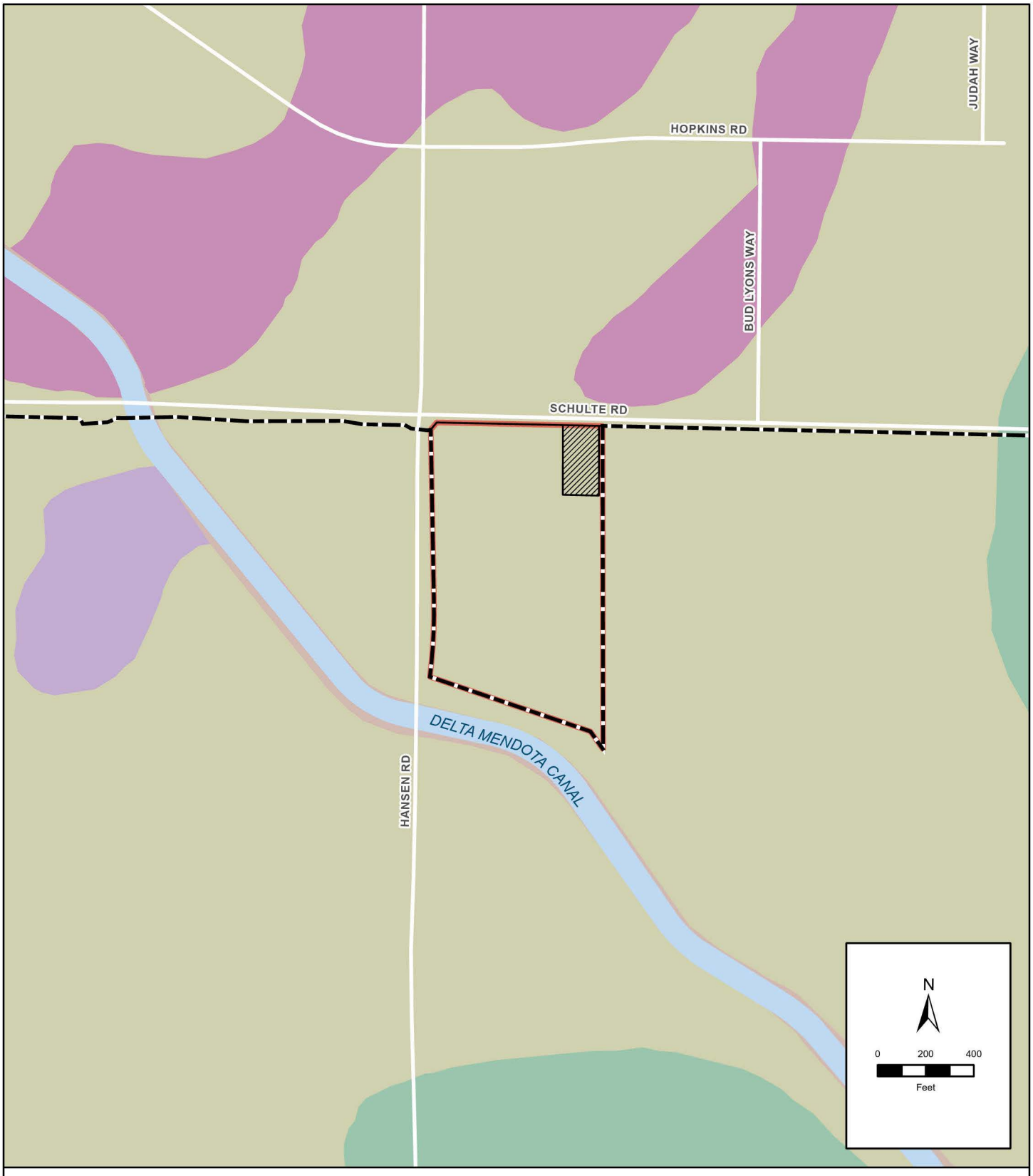
Implementation of Mitigation Measure 3.6-2 would ensure steps would be taken to reduce impacts to paleontological resources in the event that they are discovered during construction. Mitigation Measure 3.6-2 requires that if subsurface deposits believed to be paleontological in origin are discovered during construction, all work must halt within a 200-foot radius of the discovery and a qualified paleontologist must be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional

judgment. Implementation of this mitigation measure would reduce this impact to a ***less-than-significant*** level.

MITIGATION MEASURE(S)

Mitigation Measure 3.6-2: *If any paleontological resources are found during grading and construction activities of the Project, all work shall be halted immediately within a 200-foot radius of the discovery until a qualified paleontologist has evaluated the find. A paleontologist is a scientist with an advanced degree (Master's or Doctorate) who studies the history of life on Earth through the fossil record.*

Work shall not continue at the discovery site until the paleontologist evaluates the find and makes a determination regarding the significance of the resource and identifies recommendations for conservation of the resource, including preserving in place or relocating on the Project site, if feasible, or collecting the resource to the extent feasible and documenting the find with the University of California Museum of Paleontology. The paleontologist recommendations shall be implemented.



LEGEND

- Project Site/ Annexation Area
- Tracy City Limits
- Development Area
- Williams Communication Parcel, not to be developed
- Capay clay, 0 to 1%
- Capay clay, 1 to 6%
- Stomar clay loam, 0 to 2%
- Stomar clay loam, wet, 0 to 2%
- Water

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 3.6-1. Soil Map

Sources: NRCS Web Soil Survey; City of Tracy; San Joaquin County GIS. Map date: February 28, 2023.

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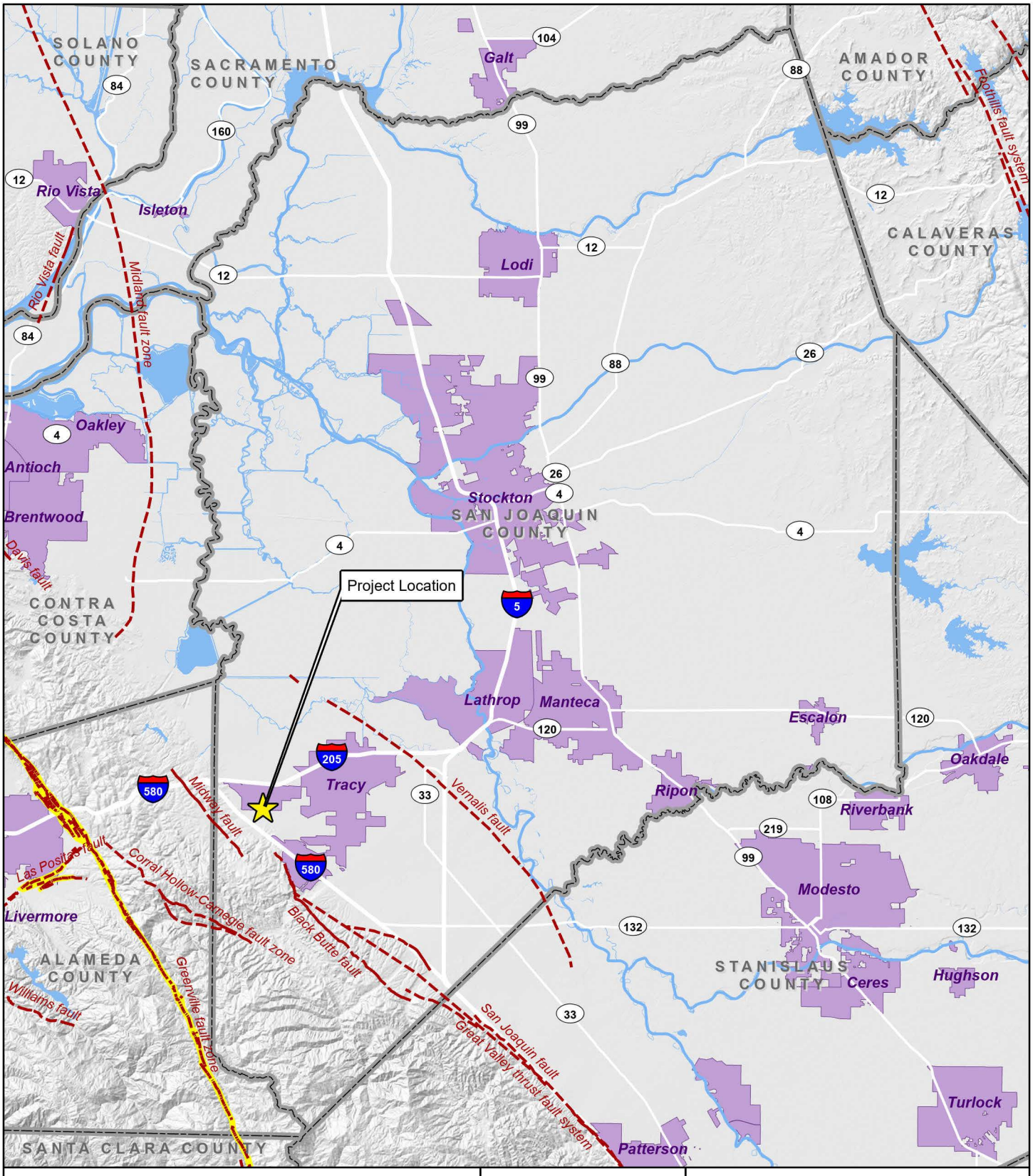
SOLANO COUNTY
SACRAMENTO COUNTY
AMADOR COUNTY
CALAVERAS COUNTY
CONTRA COSTA COUNTY
SAN JOAQUIN COUNTY
STANISLAUS COUNTY
ALAMEDA COUNTY
SANTA CLARA COUNTY
Galt
Rio Vista
Isleton
Lodi
Oakley
Antioch
Brentwood
Stockton
Lathrop
Manteca
Escalon
Oakdale
Ripon
Riverbank
Tracy
Modesto
Ceres
Hughson
Turlock
Patterson
Livermore
Project Location
Foothills fault system
Rio Vista fault
Midland fault zone
Davis fault
Midway fault
Vernalis fault
Las Positas fault
Corral Hollow-Carnegie fault zone
Black Butte fault
Greenville fault zone
Williams fault
San Joaquin fault
Great Valley thrust fault system
LEGEND
County Boundary
Incorporated Area
Quaternary Fault
Alquist Priolo Fault Zone
N
0 2½ 5
Miles
CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT
Figure 3.6-2.Earthquake Faults
Sources: USGS, California State GeoPortal; San Joaquin County GIS. Map date: February 28, 2023.
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This section discusses regional greenhouse gas (GHG) emissions, climate change, and energy conservation impacts that could result from Project implementation. The analysis contained in this section is intended to be at a Project level, and covers impacts associated with the conversion of the entire site to urban uses. This section provides a background discussion of greenhouse gases and climate change linkages and effects of global climate change. This section is organized with an existing setting, regulatory setting, approach/methodology, and impact analysis. The analysis and discussion of the GHG, climate change, and energy conservation impacts in this section focuses on the proposed Project's consistency with local, regional, and statewide climate change planning efforts and discusses the context of these planning efforts as they relate to the proposed Project. Disclosure and discussion of the Project's estimated energy usage and greenhouse gas emissions are provided.

Two comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic: one from the State of California Department of Justice (December 20, 2023), and the other from the San Joaquin Valley Air Pollution Control District (January 16, 2024). The commenter from the California Department of Justice provided a guidance document *Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act*, for the City's consideration as it evaluates the potential environmental effects of the Project. The commentor from the San Joaquin Air Pollution Control District provided recommended mitigation measures and identified rules, regulations, and best practices for environmental analysis of the Project's air quality and greenhouse gas emissions. These comments are addressed within this section. The full comments are included in Appendix A.

3.7.1 ENVIRONMENTAL SETTING

GREENHOUSE GASES AND CLIMATE CHANGE LINKAGES

Various gases in the Earth's atmosphere, classified as atmospheric GHGs, play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring GHGs include water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also GHGs, but they are, for the most part, solely a product of industrial activities. Although the direct GHGs CO_2, CH_4, and N_2O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2019, concentrations of these three GHGs have increased globally by 47, 156, and 23 percent, respectively (IPCC, 2023).

GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the

prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by the industrial and electricity generation sectors (California Energy Commission, 2023).

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California produced 369 million gross metric tons of carbon dioxide equivalents ($MMTCO_2e$) in 2022 (California Air Resources Board, 2023).

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2022, accounting for 38% of total GHG emissions in the State. This category was followed by the industrial sector (23%), the electricity generation sector (including both in-state and out of-state sources) (16%), the agriculture and forestry sector (9%), the residential energy consumption sector (8%), and the commercial energy consumption sector (6%) (California Air Resources Board, 2023).

EFFECTS OF GLOBAL CLIMATE CHANGE

The effects of increasing global temperature are far-reaching and extremely difficult to quantify. The scientific community continues to study the effects of global climate change. In general, increases in the ambient global temperature as a result of increased GHGs are anticipated to result in rising sea levels, which could threaten coastal areas through accelerated coastal erosion, threats to levees and inland water systems and disruption to coastal wetlands and habitat.

If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the State. The snowpack portion of the supply could potentially decline by 50% to 75% by the end of the 21st century (National Resources Defense Council, 2014). This phenomenon could lead to significant challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the State; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system.

Sea level has risen approximately seven inches during the last century and it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emissions levels (California Environmental Protection Agency, 2010). If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion and disruption of wetlands. As the existing climate throughout California changes over time, mass migration of species, or failure of species to migrate in time to adapt to the perturbations in climate, could also result. Under the emissions scenarios of the Climate Scenarios report (California Environmental Protection Agency, 2010), the impacts of global warming in California are anticipated to include, but are not limited to, the following.

Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25% to 35% under the lower warming range and to 75% to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts capture and transport water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major State fresh water supply. Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25% of the water supply they need; decrease the potential for hydropower production within the State (although the effects on hydropower are uncertain); and seriously harm winter tourism. Under the lower warming range, the snow dependent winter recreational season at lower elevations could be reduced by as much as one month. If temperatures reach the higher warming

range and precipitation declines, there might be many years with insufficient snow for skiing, snowboarding, and other snow dependent recreational activities.

If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snow pack by as much as 70% to 90%. Under the lower warming scenario, snowpack losses are expected to be only half as large as those expected if temperatures were to rise to the higher warming range. How much snowpack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack would pose challenges to water managers, hamper hydropower generation, and nearly eliminate all skiing and other snow-related recreational activities.

Agriculture

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher carbon dioxide levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures are likely to worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts, and milk.

Crop growth and development will be affected, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures will likely aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

In addition, continued global warming will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, it is likely that new or different weed species will fill the emerging gaps. Continued global warming is also likely to alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global warming is expected to alter the distribution and character of natural vegetation thereby resulting in a possible increased risk of large wildfires. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout

the State. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30% toward the end of the century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90%.

Moreover, continued global warming will alter natural ecosystems and biological diversity within the State. For example, alpine and sub-alpine ecosystems are expected to decline by as much as 60% to 80% by the end of the century as a result of increasing temperatures. The productivity of the State's forests is also expected to decrease as a result of global warming.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the State's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

ENERGY CONSUMPTION

Energy in California is consumed from a wide variety of sources. Fossil fuels (including gasoline and diesel fuel, natural gas, and energy used to generate electricity) are the most widely used form of energy in the State. However, renewable sources of energy (such as solar and wind) are growing in proportion to California's overall energy mix. A large driver of renewable sources of energy in California is the State's current Renewable Portfolio Standard (RPS), which requires the State to derive at least 60 percent of electricity generated by 2030, and to achieve zero-carbon emissions by 2045 (as passed in September 2018, under SB 100). The 2021 SB 100 Joint Agency Report was published in 2021, which found that the long-term goals contained in SB 100 are technically achievable through multiple pathways, although achieving 100 clean electricity would increase the total annual electricity system cost by 6% relative to the cost under the state's Renewables Portfolio Standard requirement of having at least 60 percent clean electricity by the end of 2030. These estimates will change over time as markets change, new technologies are commercialized, and additional factors such as grid reliability are included in future analyses.

Overall, in 2019, California's per capita energy usage was ranked second-lowest in the nation (U.S. EIA, 2020b). California's per capita rate of energy usage has remained relatively constant since the 1970's. Many State regulations since the 1970s, including new building energy efficiency standards, vehicle fleet efficiency measures, as well as growing public awareness, have helped to keep per capita energy usage in the State in check.

The consumption of non-renewable energy (i.e. fossil fuels) associated with the operation of passenger, public transit, and commercial vehicles results in GHG emissions that contribute to global climate change. Alternative fuels such as natural gas, ethanol, and electricity (unless derived from solar, wind, nuclear, or other energy sources that do not produce carbon emissions) also result in GHG emissions and contribute to global climate change.

Electricity Consumption

California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. In 2016, more than one-fourth of the electricity supply comes from facilities outside of the State. Much of the power delivered to California from states in the Pacific Northwest was generated by wind. States in the Southwest delivered power generated at coal-fired power plants, at natural gas-fired power plants, and from nuclear generating stations (U.S. EIA, 2023b). In 2022, approximately 42 percent of California's utility-scale net electricity generation was fueled by natural gas. In addition, about 42 percent of the State's utility-scale net electricity generation came from non-hydroelectric renewable technologies, such as solar, wind, geothermal, and biomass. Another 8 percent of the State's utility-scale net electricity generation came from hydroelectric generation, and nuclear energy powered an additional 88 percent. The amount of electricity generated from coal is negligible (U.S. EIA, 2023a). The percentage of renewable resources as a proportion of California's overall energy portfolio is increasing over time, as directed by the State's Renewable Portfolio Standard (RPS).

According to the California Energy Commission (CEC), total statewide electricity consumption increased from 166,979 gigawatt-hours (GWh) in 1980 to 228,038 GWh in 1990, which is an estimated annual growth rate of 3.66 percent. The statewide electricity consumption in 1997 was 246,225 GWh, reflecting an annual growth rate of 1.14 percent between 1990 and 1997 (U.S. EIA, 2020b). Statewide consumption was 274,985 GWh in 2010, an annual growth rate of 0.9 percent between 1997 and 2010.

PG&E is a publicly traded utility company that, under contract with the California Public Utilities Commission (CPUC), generates, purchases, and distributes energy. PG&E's service area covers 70,000 square miles, roughly extending north to south from Eureka to Bakersfield and east to west from the Sierra Nevada to the Pacific Ocean. PG&E's electricity distribution system consists of 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines.

PG&E's, electricity is generated from a combination of traditional sources, such as coal-fired plants, nuclear power plants, and hydroelectric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants, or "solar farms." "The grid," or bulk electric grid, is a network of high-voltage transmission lines that link power plants to the PG&E system. The distribution system, comprising lower-voltage secondary lines, is at the street and neighborhood level. It consists of overhead or underground distribution lines, transformers, and individual service "drops" that connect to individual customers.

In addition to its base plan, PG&E has three plan options, known as Solar Choice options and Green Saver, which give customers the option of purchasing energy from solar resources. The first Solar Choice option provides up to 50 percent of a customer's energy from solar resources, while the other option provides up to 100 percent of a customer's energy from solar resources, and the Green Saver option provides up to 90 percent of a customer's energy from solar resources.

Table 3.7-1 outlines PG&E's power mix in 2021, compared to the power mix for the state. The table identifies the renewable and non-renewable energy sources for PG&E. It should be noted

that some GHG free sources are not considered renewable (e.g., nuclear is GHG free but not renewable).

TABLE 3.7-1. PG&E AND THE STATE OF CALIFORNIA POWER MIX IN 2021

ENERGY RESOURCES	*PG&E OPTION: BASE*	*PG&E OPTION: 50% SOLAR CHOICE*	*PG&E OPTION: 100% SOLAR*	*PG&E OPTION: GREEN SAVER*	*CALIFORNIA POWER MIX 2021*
Eligible Renewable	47.7%	70.9%	93.9%	89.9%	33.6%
Biomass and waste	4.2%	2.1%	0.0%	0.0%	2.3%
Geothermal	5.2%	2.6%	0.0%	0.0%	4.8%
Small hydroelectric	1.8%	0.9%	0.0%	0.0%	1.0%
Solar	25.7%	59.8%	93.9%	89.9%	14.2%
Wind	10.9%	5.5%	0.0%	0.0%	11.4%
Coal	0.0%	0.0%	0.0%	0.0%	3.0%
Large Hydroelectric	4.0%	2.0%	0.0%	0.0%	9.2%
Natural Gas	8.9%	7.4%	0.0%	0.0%	37.9%
Nuclear	39.3%	19.7%	0.0%	0.0%	9.3%
Other	0.0%	0.0%	0.0%	0.0%	0.2%
Unspecified	0.0%	0.0%	6.1%	10.1%	6.8%

NOTE: [A.] ELECTRICITY FROM TRANSACTIONS THAT ARE NOT TRACEABLE TO SPECIFIC GENERATION SOURCES ARE CLASSIFIED AS UNSPECIFIED SOURCES OF POWER.

SOURCE: PG&E. 2021. BUILDING A CLEANER, SAFER ENERGY FUTURE. AVAILABLE: HTTPS://WWW.PGE.COM/PGE_GLOBAL/COMMON/PDFS/YOUR-ACCOUNT/YOUR-BILL/UNDERSTAND-YOUR-BILL/BILL-INSERTS/2022/1022-POWER-CONTENT-LABEL.PDF. ACCESSED: AUGUST 16, 2023.

In 2021, electricity consumption in San Joaquin County was approximately 5,608 million kWh. Of that, residential consumption accounted for approximately 2,125.4 million kWh (California Energy Commission, 2023).

Oil

The primary energy source for the United States is oil, which is refined to produce fuels like gasoline, diesel, and jet fuel. Oil is a finite, nonrenewable energy source. World consumption of petroleum products has grown steadily in the last several decades. As of 2016, world consumption of oil had reached 96 million barrels per day. The United States, with approximately five percent of the world's population, accounts for approximately 19 percent of world oil consumption, or approximately 18.6 million barrels per day (U.S. EIA, 2023c). The transportation sector relies heavily on oil. In California, petroleum-based fuels currently provide approximately 96 percent of the State's transportation energy needs.

Natural Gas/Propane

The State produces approximately 12 percent of its natural gas, while obtaining 22 percent from Canada and 65 percent from the Rockies and the Southwest (California Energy Commission, 2012).

In 2006, California produced 325.6 billion cubic feet of natural gas (California Energy Commission, 2012).

PG&E provides natural gas for residential, industrial, and agency consumers within the San Joaquin County area. PG&E's natural gas (i.e., methane) delivery system includes 42,000 miles of natural gas distribution pipelines and 6,700 miles of transmission pipelines. PG&E's gas transmission system serves approximately 15 million energy customers in California. The system is operated under an inspection and monitoring program in real time on a 24-hour basis, with leak inspections, surveys, and patrols continuously taking place along the pipelines. Gas delivered by PG&E originates in gas fields in California, the Southwest, the Rocky Mountains, and Canada. Transmission pipelines send natural gas from the fields and storage facilities. The smaller distribution pipelines deliver gas to individual businesses or residences.

In 2021, natural gas consumption in San Joaquin County was approximately 186 million therms (California Energy Commission, 2023). Residential natural gas consumption accounted for approximately 90.18 million therms.

3.7.2 REGULATORY SETTING

FEDERAL

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, hazardous air pollutant standards, State attainment plans, NAAQS motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The EPA is responsible for administering the FCAA. The FCAA requires the EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health, and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

In 2007, in the court case of *Massachusetts et al. vs. the USEPA et al*. (549 U.S. 497), the U.S. Supreme Court found that GHGs are air pollutants covered by the federal Clean Air Act (42 USC Sections 7401-7671q). The Supreme Court held that the Administrator of the United States Environmental Protection Agency must determine whether or not emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the Administrator is required to follow the language of Section 202(a) of the Clean Air Act. On December 7, 2009, the Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not themselves impose any requirements on industry or other entities. However, this action was a prerequisite for implementing GHG emission standards for vehicles. In collaboration with the National Highway Traffic Safety Administration (NHTSA) and CARB, the USEPA developed emission standards for light-duty vehicles (2012-2025 model years), and heavy-duty vehicles (2014-2027 model years).

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards.

Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the U.S. The Corporate Average Fuel Economy (CAFE) program, which is administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

Federal Climate Change Policy

According to the U.S. EPA, "the United States government has established a comprehensive policy to address climate change" that includes slowing the growth of emissions; strengthening science, technology, and institutions; and enhancing international cooperation. To implement this policy, "the Federal government is using voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science." The U.S. EPA administers multiple programs that encourage voluntary GHG reductions, including "ENERGY STAR", "Climate Leaders", and Methane Voluntary Programs.

The following are actions taken at the federal level relating to GHG emissions.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the U.S. EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applies to passenger cars, light duty trucks, and medium duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration issued final rules on a second phase joint rulemaking, establishing national standards for light duty vehicles for model years 2017 through 2025 in August 2012.[1] The new standards for model years 2017 through 2025 apply to passenger cars, light duty trucks, and medium duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO2 in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements.

The U.S. EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, which became effective November 14, 2011. For combination tractors, the agencies adopted engine and vehicle standards that began in the 2014 model year and achieve up to a 20 percent reduction in CO2 emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies adopted separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles, and a 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Finally, for vocational vehicles, the engine and vehicle standards would achieve up to a 10 percent reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

Mandatory Reporting of Greenhouse Gases. The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the U.S. EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the United States and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or

[1] United States Environmental Protection Agency (EPA). 2012. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks. Website: http://www.epa.gov/otaq/climate/documents/420f12051.pdf. Accessed January 21, 2021.

industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the U.S. EPA.

Cap and Trade. Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Currently only California and Quebec are participating in the cap-and-trade program.

STATE

The California Legislature has enacted a series of statutes in recent years addressing the need to reduce GHG emissions across the State. These statutes can be categorized into four broad categories: (i) statutes setting numerical statewide targets for GHG reductions, and authorizing CARB to enact regulations to achieve such targets; (ii) statutes setting separate targets for increasing the use of renewable energy for the generation of electricity throughout the State; (iii) statutes addressing the carbon intensity of vehicle fuels, which prompted the adoption of regulations by CARB; and (iv) statutes intended to facilitate land use planning consistent with statewide climate objectives. The discussion below will address each of these key sets of statutes, as well as CARB "Scoping Plans" intended to achieve GHG reductions under the first set of statutes and recent building code requirements intended to reduce energy consumption.

Statutes Setting Statewide GHG Reduction Targets

ASSEMBLY BILL 32 (GLOBAL WARMING SOLUTIONS ACT)

In 2006, the California State Legislature enacted the California Global Warming Solutions Act of 2006 (Health & Safety Code Section 38500 et seq.), also known as Assembly Bill (AB) 32 (Stats. 2006, ch. 488). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 required that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction was accomplished through an enforceable statewide cap on GHG emissions that was phased in starting in 2012. To effectively implement the cap, AB 32 directed the California Air Resources Board (CARB) to develop and implement regulations to reduce statewide GHG emissions from stationary sources.

SENATE BILL 32

SB 32 (Stats. 2016, ch. 249) added Section 38566 to the Health and Safety Code. It provides that "[i]n adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by [Division 25.5 of the Health and Safety Code], [CARB] shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030."

In other words, SB 32 requires California, by 2030, to reduce its statewide GHG emissions so that they are 40 percent below those that occurred in 1990.

Statutes Setting Target for the Use of Renewable Energy for the Generation of Electricity

CALIFORNIA RENEWABLES PORTFOLIO STANDARD

Senate Bill X1-2 (Stats. 2011, 1st Ex. Sess., ch. 1) set more aggressive statutory targets for renewable electricity, culminating in the requirement that 33 percent of the State's electricity come from renewables by 2020. This legislation applies to all electricity retailers in the State, including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities were required to meet renewable energy goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and 33 percent by the end of 2020. (See Pub. Utility Code, Section 399.11 et seq. [subsequently amended].) SB 350, discussed below, increases the Renewable Portfolio Standard to require 50 percent of electricity generated to be from renewables by 2030. (Pub. Utility Code, Section 399.11, subd (a); see also Section 399.30, subd. (c)(2).) In 2018, Senate Bill 100 (Stats. 2018, ch. 312) revised the above-described deadlines and targets so that the State will have to achieve a 50% renewable resources target by December 31, 2026 (instead of by 2030) and achieve a 60% target by December 31, 2030. The legislation also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all State agencies by December 31, 2045.

Statutes and CARB Regulations Addressing the Carbon Intensity of Petroleum-based Transportation Fuels

ASSEMBLY BILL 1493, PAVLEY CLEAN CARS STANDARDS

In 2002, the Legislature enacted Assembly Bill 1493 ("Pavley Bill") (Stats. 2002, ch. 200), which directed CARB to develop and adopt regulations that achieve the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks beginning with model year 2009. (See Health and Safety Code Section 43018.5.) In September 2004, pursuant to this directive, CARB approved regulations to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. These regulations created what are commonly known as the "Pavley standards." In September 2009, CARB adopted amendments to the Pavley standards to reduce GHG emissions from new motor vehicles through the 2016 model year. These regulations created what are commonly known as the "Pavley II standards." (See California Code of Regulations, Title 13, Sections 1900, 1961, and 1961.1 et seq.)

In 2012, CARB adopted an Advanced Clean Cars (ACC) program aimed at reducing both smog-causing pollutants and GHG emissions for vehicles model years 2017-2025. This historic program, developed in coordination with the USEPA and NHTSA, combined the control of smog-causing (criteria) pollutants and GHG emissions into a single coordinated set of requirements for model years 2015 through 2025. The regulations focus on substantially increasing the number of plug-in

hybrid cars and zero-emission vehicles in the vehicle fleet and on making fuels such as electricity and hydrogen readily available for these vehicle technologies. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles in the 2018 through 2025 model years. (See California Code of Regulations, Title 13, Sections 1900, 1961, 1961.1, 1961.2, 1961.3, 1965, 1968.2, 1968.5, 1976, 1978, 2037, 2038, 2062, 2112, 2139, 2140, 2145, 2147, 2235, and 2317 et seq.)

It is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 34 percent below 2016 levels by 2025, all while improving fuel efficiency and reducing motorists' costs.

Statute Intended to Facilitate Land Use Planning Consistent with Statewide Climate Objectives

CALIFORNIA SENATE BILL 375 (SUSTAINABLE COMMUNITIES STRATEGY)

This 2008 legislation built on AB 32 by setting forth a mechanism for coordinating land use and transportation on a regional level for the purpose of reducing GHGs. The focus is to reduce miles traveled by passenger vehicles and light trucks. CARB is required to set GHG reduction targets for each metropolitan region for 2020 and 2035.[2] Each of California's metropolitan planning organizations then prepares a sustainable communities strategy that demonstrates how the region will meet its GHG reduction target through integrated land use, housing, and transportation planning. Once adopted by the metropolitan planning organizations, the sustainable communities strategy is to be incorporated into that region's federally enforceable regional transportation plan. If a metropolitan planning organization is unable to meet the targets through the sustainable communities strategy, then an alternative planning strategy must be developed that demonstrates how targets could be achieved, even if meeting the targets is deemed to be infeasible.

Climate Change Scoping Plans

2017 SB 32 SCOPING PLAN

With the passage of SB 32, the Legislature also passed companion legislation AB 197, which provided additional direction for developing the scoping plan. In response, CARB adopted an updated Scoping Plan in December 2017. The document reflects the 2030 target of reducing statewide GHG emissions by 40 percent below 1990 levels codified by SB 32. The GHG reduction strategies in the plan that CARB will implement to meet the target include:

- SB 350 - achieve 50 percent Renewables Portfolio Standard (RPS) by 2030 and doubling of energy efficiency savings by 2030;

[2] The San Joaquin COG region was assigned reduction targets of 12% by 2020 and 16% by 2035.

- Low Carbon Fuel Standard - increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020);
- Mobile Source Strategy (Cleaner Technology and Fuels Scenario) - maintaining existing GHG standards for light- and heavy-duty vehicles, put 4.2 million zero-emission vehicles on the roads, and increase zero-emission buses, delivery and other trucks.
- Sustainable Freight Action Plan - improve freight system efficiency, maximize use of near-zero emission vehicles and equipment powered by renewable energy, and deploy over 100,000 zero-emission trucks and equipment by 2030;
- Short-Lived Climate Pollutant Reduction Strategy - reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030 and reduce emissions of black carbon 50 percent below 2013 levels by 2030;
- SB 375 Sustainable Communities Strategies - increased stringency of 2035 targets;
- Post-2020 Cap-and-Trade Program - declining caps, continued linkage with Québec, and linkage to Ontario, Canada;
- 20 percent reduction in GHG emissions from the refinery sector; and
- By 2018, develop an Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

2022 SCOPING PLAN UPDATE

The Draft 2022 Scoping Plan Update was released on May 10, 2022, but has yet to be adopted. The 2022 Scoping Plan Update assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

Building Code Requirements Intended to Reduce GHG Emissions

CALIFORNIA ENERGY CODE

The California Energy Code (California Code of Regulations, Title 24, Part 6), which is incorporated into the Building Energy Efficiency Standards, was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Although these standards were not originally intended to reduce GHG emissions, increased energy efficiency results in decreased GHG emissions because energy efficient buildings require less electricity and thus less consumption of fossil fuels, which emit GHGs. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The current 2019 Building Energy Efficiency Standards, commonly referred to as the "Title 24" standards, include changes from the previous standards that were adopted, to do the following:

- Provide California with an adequate, reasonably priced, and environmentally sound supply of energy.

- Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its GHG emissions to 1990 levels by 2020.
- Pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs.
- Act on the California Energy Commission's Integrated Energy Policy Report, which finds that standards are the most cost-effective means to achieve energy efficiency, states an expectation that the Building Energy Efficiency Standards will continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Building Energy Efficiency Standards in reducing energy related to meeting California's water needs and in reducing GHG emissions.
- Meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of State building codes.
- Meet Executive Order S-20-04, the Green Building Initiative, to improve the energy efficiency of non-residential buildings through aggressive standards.

The most recent Title 24 standards are the 2019 Title 24 standards. The 2019 Building Energy Efficiency Standards improve upon the 2016 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Buildings permitted on or after January 1, 2020, must comply with the 2019 Standards. The California Energy Commission updates the standards every three years.

Single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. This will reduce greenhouse gas emissions by 700,000 metric tons over three years, equivalent to taking 115,000 fossil fuel cars off the road. Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades.

CALIFORNIA GREEN BUILDING STANDARDS CODE

The purpose of the California Green Building Standards Code (California Code of Regulations Title 24, Part 11) is to improve public health and safety and to promote the general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: 1) planning and design; 2) energy efficiency; 3) water efficiency and conservation; 4) material conservation and resource efficiency; and 5) environmental quality. The California Green Building Standards, which became effective on January 1, 2011, instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential uses, and State-owned buildings, as well as schools and hospitals. The mandatory standards require the following:

- 20 percent mandatory reduction in indoor water use relative to baseline levels;
- 50 percent construction/demolition waste must be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and

- Low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particle boards.

The voluntary standards require the following:

- **Tier I:** 15 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste, 10 percent recycled content, 20 percent permeable paving, 20 percent cement reduction, and cool/solar reflective roof.
- **Tier II:** 30 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, 30 percent cement reduction, and cool/solar reflective roof.

SAN JOAQUIN AIR POLLUTION CONTROL DISTRICT

Climate Change Action Plan

On August 21, 2008, the Valley Air District Governing Board approved a proposal called the Climate Change Action Plan (CCAP). The CCAP began with a public process bringing together stakeholders, land use agencies, environmental groups, and business groups to conduct public workshops to develop comprehensive policies for CEQA Guidelines, a carbon exchange bank, and voluntary GHG emissions mitigation agreements for the Governing Board's consideration. The CCAP contains the following goals and actions:

- Develop GHG significance thresholds to address CEQA projects with GHG emission increases.
- Develop the San Joaquin Valley Carbon Exchange for banking and trading GHG reductions.
- Authorize use of the SJVAPCD [Valley Air District's] existing inventory reporting system to allow use for GHG reporting required by AB 32 regulations.
- Develop and administer GHG reduction agreements to mitigate proposed emission increases from new projects.
- Support climate protection measures that reduce greenhouse gas emissions as well as toxic and criteria pollutants. Oppose measures that result in a significant increase in toxic or criteria pollutant emissions in already impacted areas.

On December 17, 2009, the Valley Air District Governing Board adopted "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA," and the policy "District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency." The Valley Air District concluded that the existing science is inadequate to support quantification of the impacts that project-specific GHG emissions have on global climatic change. The Valley Air District found the effects of project-specific emissions to be cumulative, and without mitigation, their incremental contribution to global climatic change could be considered cumulatively considerable. The Valley Air District found that this cumulative impact

is best addressed by requiring all projects to reduce their GHG emissions, whether through project design elements or mitigation.

The Valley Air District's approach is intended to streamline the process of determining whether project-specific GHG emissions would have a significant effect. Projects exempt from the requirements of CEQA, and projects complying with an approved plan or mitigation program would be determined to have a less than significant cumulative impact. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources and must have a certified final CEQA document.

For non-exempt projects, those projects for which there is no applicable approved plan or program, or those projects not complying with an approved plan or program, the lead agency must evaluate the project against performance-based standards and would require the adoption of design elements, known as a Best Performance Standard, to reduce GHG emissions. The Best Performance Standards (BPS) have not yet fully been established, though they must be designed to effect a 29 percent reduction when compared with the BAU projections identified in the ARB's AB 32 Scoping Plan.

BAU represents the emissions that would occur in 2020 if the average baseline emissions during the 2002–2004 period were grown to 2020 levels, without control. These standards thus would carry with them pre-quantified emissions reductions, eliminating the need for project-specific quantification. Therefore, projects incorporating BPS would not require specific quantification of GHG emissions, and automatically would be determined to have a less than significant cumulative impact for GHG emissions.

For stationary source permitting projects, BPS means, "The most stringent of the identified alternatives for control of GHG emissions, including type of equipment, design of equipment and operational and maintenance practices, which are achieved-in-practice for the identified service, operation, or emissions unit class." The Valley Air District has identified BPS for the following sources: boilers; dryers and dehydrators; oil and gas extraction, storage, transportation, and refining operations; cogeneration; gasoline dispensing facilities; volatile organic compound control technology; and steam generators.

For development projects, BPS means, "Any combination of identified GHG emission reduction measures, including project design elements and land use decisions that reduce project-specific GHG emission reductions by at least 29 percent compared with business as usual."

Projects not incorporating BPS would require quantification of GHG emissions and demonstration that BAU GHG emissions have been reduced or mitigated by 29 percent. As stated earlier, the ARB's adjusted inventory reduced the amount required by the State to achieve 1990 emission levels from 29 percent to 21.7 percent to account for slower growth experienced since the 2008 recession. According to Valley Air District guidance, quantification of GHG emissions would be required for all projects for which the lead agency has determined that an EIR is required, regardless of whether the project incorporates BPS.

Nevertheless, it should be noted that, in light of the Newhall Ranch case, the Supreme Court concluded that a BAU analysis requires substantial evidence to demonstrate what the required percentage reduction from BAU would be for an individual project. The court expressed skepticism that a percentage reduction goal applicable to the State as a whole would apply without change to an individual development project, regardless of its size or location. Therefore, the BAU analysis as identified by SJVAPCD is not employed for this EIR.

San Joaquin Valley Carbon Exchange

The Valley Air District initiated work on the San Joaquin Valley Carbon Exchange in November 2008. The purpose of the carbon exchange is to quantify, verify, and track voluntary GHG emissions reductions generated within the San Joaquin Valley. However, the Valley Air District has pursued an alternative strategy that incorporates the GHG emissions into its existing Rule 2301—Emission Reduction Credit Offset Banking that formerly only addressed criteria pollutants. The Valley Air District is also participating with the California Air Pollution Control Officers Association (CAPCOA), of which it is a member, in the CAPCOA Greenhouse Gas Reduction Exchange (GHG Rx). The GHG Rx is operated cooperatively by air districts that have elected to participate. Participating districts have signed a Memorandum of Understanding (MOU) with CAPCOA and agree to post only those credits that meet the Rx standards for quality. The objective is to provide a secure, low-cost, high-quality, GHG exchange for credits created in California. The GHG Rx is intended to help fulfill compliance obligations, or mitigation needs of local projects subject to environmental review, reducing the uncertainty of using credits generated in distant locations.

Rule 2301

While the CCAP indicated that the GHG emission reduction program would be called the San Joaquin Valley Carbon Exchange, the Valley Air District incorporated a method to register voluntary GHG emission reductions into its existing Rule 2301-Emission Reduction Credit Banking through amendments of the rule. Amendments to the rule were adopted on January 19, 2012. The purposes of the amendments to the rule include the following:

- Provide an administrative mechanism for sources to bank voluntary GHG emission reductions for later use.
- Provide an administrative mechanism for sources to transfer banked GHG emission reductions to others for any use.
- Define eligibility standards, quantitative procedures, and administrative practices to ensure that banked GHG emission reductions are real, permanent, quantifiable, surplus, and enforceable.

LOCAL

City of Tracy General Plan

The City of Tracy General Plan includes several policies that are relevant to air quality. General Plan policies applicable to the Project are identified below:

POLICIES: AIR QUALITY ELEMENT

- AQ-1.1-P1. The City shall promote land use patterns that reduce the number and length of motor vehicle trips.
- AQ-1.1-P2. To the extent feasible, the City shall maintain a balance and match between jobs and housing.
- AQ-1.2-P1. The City shall assess air quality impacts using the latest version of the CEQA Guidelines and guidelines prepared by the San Joaquin Valley Air Pollution Control District.
- AQ-1.2-P2. The City shall assess through the CEQA process any air quality impacts of development projects that may be insignificant by themselves, but cumulatively significant.
- AQ-1.2-P3. Developers shall implement best management practices to reduce air pollutant emissions associated with the construction and operation of development projects.
- AQ-1.2-P4. New development projects should incorporate energy efficient design features for HVAC, lighting systems and insulation that exceed Title 24.
- AQ-1.2-P5. Use of solar water and pool heaters is encouraged.
- AQ-1.2-P6. Installation of solar voltaic panels on new homes and businesses shall be encouraged.
- AQ-1.2-P7. Trees should be planted on the south- and west-facing sides of new buildings or building undergoing substantial renovation in order to reduce energy usage.
- AQ-1.2-P12. New sources of toxic air pollutants shall prepare a Health Risk Assessment as required under the Air Toxics “Hot Spots” Act and, based on the results of the Assessment, establish appropriate land use buffer zones around those areas posing substantial health risks.
- AQ-1.2-P13. Dust control measures consistent with San Joaquin Valley Air Pollution Control District rules shall be required as a condition of approval for subdivision maps, site plans, and all grading permits.
- AQ-1.2-P14. Developments that significantly impact air quality shall only be approved if all feasible mitigation measures to avoid, minimize or offset the impact are implemented.
- AQ-1.2-P15. Encourage businesses to electrify loading docks or implement idling-reduction systems so that trucks transporting refrigerated goods can continue to power cab cooling elements during loading, layovers, and rest periods.
- AQ-1.3-P3. The City shall encourage employers to establish Transportation Demand Management programs.
- AQ-1.4-P1. The City shall continue to consult with other local, regional and State agencies on air quality planning efforts as well as encourage community participation in air quality planning.
- AQ-1.4-P2. The City shall be proactive in educating the public about the linkages between land use, transportation and air quality.
- AQ-1.4-P3. The City shall be proactive in reducing greenhouse gas emissions from City operations as well as new or renovated development.

City of Tracy Sustainability Action Plan

The City of Tracy Sustainability Action Plan was adopted in 2011 to achieve sustainability in numerous sectors including GHG emissions, energy, and transportation and land use. The Sustainability Action Plan includes specific measures to be implemented that the City estimates will reduce GHG emissions by 378,461 to 482,154 metric tons (MT) of CO_2e. These reductions would come in part from reductions in Vehicle Miles Traveled (VMT) and energy consumption. However, is should be noted that the sustainability measures included with the City of Tracy Sustainability Action Plan do not apply to land use projects.

3.7.3 IMPACTS AND MITIGATION MEASURES

GREENHOUSE GAS EMISSIONS THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, climate change-related impacts are considered significant if implementation of the proposed Project would do any of the following:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The vast majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

For future projects, the significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds, or consistency with a regional GHG reduction plan (such as a Climate Action Plan). The City of Tracy does not currently have a formal GHG emissions reduction plan or recommended emissions thresholds for determining significance associated with GHG emissions from development projects.

Since no other local or regional Climate Action Plan is in place, the Project is assessed for its consistency with CARB's adopted Scoping Plan policies. This would be achieved with an assessment of the project's compliance with relevant Scoping Plan measures contained in the CARB's 2017 Scoping Plan Update, as well as the latest Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the region the Project is located within (i.e. the San Joaquin Council of Governments (SJCOG) 2022 RTP/SCS, or the SJCOG 2022 RTP/SCS, which was adopted on August 22, 2022). Therefore, this analysis provides a qualitative assessment of the Project's compliance with the applicable plans, policies, and regulations for the purposes of reducing greenhouse gas emissions to determine whether the project would have a significant impact on the environment relative to GHGs.

IMPACTS AND MITIGATION MEASURES

Impact 3.7-1: Project implementation would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (Less than Significant)

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions, but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. Implementation of the Project would contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to Project development would be primarily associated with increases of CO_2 and other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O), from mobile sources and utility usage.

The Project's short-term construction-related and long-term operational GHG emissions were estimated using the California Emission Estimator Model (CalEEMod)™ (v.2022.1). CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify GHG emissions from land use projects. The model quantifies direct GHG emissions from construction and operation (including vehicle use), as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Emissions are expressed in annual metric tons of CO_2 equivalent units of measure (i.e., MT CO_2e), based on the global warming potential of the individual pollutants.

SHORT-TERM CONSTRUCTION GHG EMISSIONS

Estimated maximum GHG emissions associated with construction of the proposed Project are summarized in Table 3.7-2. These emissions include all worker vehicle, vendor vehicle, hauler vehicle, and off-road construction vehicle GHG emissions. For the purposes of this analysis, based on input from the Project applicant, the proposed Project is assumed to commence construction in 2025 and finish in 2027.

TABLE 3.7-2: PROJECT MITIGATED CONSTRUCTION AND OPERATIONAL GHG EMISSIONS (METRIC TONS/YEAR)

	CO_2E
CONSTRUCTION	
Maximum Annual	498
OPERATION	
Annual	2,814

SOURCE: CALEEMOD, V.2022.1

As presented in the table, short-term emissions of GHGs are estimated to be 2,814 MT CO_2e during Project operation, and a maximum of 498 MT CO_2e annual GHG emissions during Project construction. It should be noted that CalEEMod does not account for Governor Newsom's Zero-Emission by 2035 Executive Order (N-79-20), which requires that all new cars and passenger trucks sold in California be zero-emission vehicles by 2035. This is anticipated to substantially reduce the operational emissions associated with passenger vehicles (i.e. mobile emissions) over time, since zero-emission vehicles (such as electric vehicles) generate much fewer greenhouse gas emissions compared with internal combustion engine-based vehicles (such as those that run on gasoline or diesel). Therefore, the operational emissions results provided in Table 3.7-2 are likely an overestimate for mobile emissions, given the state's ongoing effort to increase electric vehicles and trucks as a proportion of the overall California vehicle fleet (as provided for by Executive Order N-79-20), and given that CalEEMod does not yet account for this EO.

2022 SCOPING PLAN CONSISTENCY

The goal to reduce GHG emissions to 1990 levels by 2020 (Executive Order S-3-05) was codified by the California Legislature as AB 32. In 2008, CARB approved a Scoping Plan as required by AB 32. The Scoping Plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The 2022 Scoping Plan identifies additional GHG reduction measures necessary to achieve the 2030 target, as well as to achieve the State's target of carbon neutrality by year 2045. These measures build upon those identified in the previous Scoping Plan updates. Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted subsequently as required to achieve Statewide GHG emissions targets.

Table 3.7-3 summarizes the Project's consistency with applicable policies and measures of the 2022 Scoping Plan. As indicated in Table 3.7-3, the Project would not conflict with any of the provisions of the 2022 Scoping Plan and would support four of the action categories through energy efficiency, water conservation, recycling, and landscaping.

TABLE 3.7-3: PROJECT CONSISTENCY WITH CARB 2022 SCOPING PLAN

SECTOR/SOURCE	*CATEGORY/DESCRIPTION*	*CONSISTENCY ANALYSIS*
AREA		
SCAQMD Rule 445 (Wood Burning Devices)	Restricts the installation of wood-burning devices in new development.	Mandatory Compliance. Approximately 15 percent of California's major anthropogenic sources of black carbon include fireplaces and woodstoves.[1] The Project would not include hearths (woodstove and fireplaces) as mandated by this rule.

SECTOR/SOURCE	*CATEGORY/DESCRIPTION*	*CONSISTENCY ANALYSIS*
ENERGY		
California Renewables Portfolio Standard, Senate Bill 350 (SB 350) and Senate Bill 100 (SB 100)	Increases the proportion of electricity from renewable sources to 33 percent renewable power by 2020. SB 350 requires PG&E to utilize 50 percent of its electricity resources by 2030. SB 100 requires 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030. It also requires the State Energy Resources Conservation and Development Commission to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.	No Conflict. The Project would utilize electricity provided by Pacific Gas & Electric (PG&E), which is required to meet the 2030, 2045, and 2050 renewable performance standards. In 2022, 38.3 percent of PG&E's electricity came from renewable resources.[3]
All Electric Appliances for New Residential and Commercial Buildings (AB 197)	All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030.	Consistent. Project-specific construction plans would be required to demonstrate that the Project only install all electric appliances for commercial development post-2029.
California Code of Regulations, Title 24, Building Standards Code	Requires compliance with energy efficiency standards for residential and nonresidential buildings.	Mandatory Compliance. Future development associated with Project implementation would be required to meet the applicable requirements of the 2022 Title 24 Building Energy Efficiency Standards, including installation of rooftop solar panels and additional CALGreen requirements (see discussion under CALGreen Code requirements below).
California Green Building Standards (CALGreen) Code Requirements	All bathroom exhaust fans are required to be ENERGY STAR compliant.	Mandatory Compliance. Project-specific construction plans would be required to demonstrate that energy efficiency appliances, including bathroom exhaust fans, and equipment are ENERGY STAR compliant.
	HVAC system designs are required to meet American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standards.	Mandatory Compliance. Project-specific construction plans would be required to demonstrate that the HVAC system meets the ASHRAE standards.
	Air filtration systems are required to meet a minimum efficiency reporting value (MERV) 8 or higher.	Mandatory Compliance. Specific development projects would be required to install air filtration systems (MERV 8 or higher) as part of its compliance with the 2022 Title 24 Building Energy Efficiency Standards.

[3] See: https://www.pge.com/content/dam/pge/docs/account/billing-and-assistance/bill-inserts/1023-Power-Content-Label.pdf

SECTOR/SOURCE	*CATEGORY/DESCRIPTION*	*CONSISTENCY ANALYSIS*
	Refrigerants used in newly installed HVAC systems shall not contain any chlorofluorocarbons.	Mandatory Compliance. Specific development projects would be required to meet this requirement as part of its compliance with the CALGreen Code.
	Parking spaces shall be designed for carpool or alternative fueled vehicles. Up to eight percent of total parking spaces is required for such vehicles.	Mandatory Compliance. Specific development projects would be required to meet this requirement as part of its compliance the CALGreen Code.
MOBILE SOURCES		
Mobile Source Strategy (Cleaner Technology and Fuels)	Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems, and reduction of vehicle miles traveled.	Consistent. The Project would be consistent with this strategy by supporting the use of zero-emission and low-emission vehicles; refer to CALGreen Code discussion above.
Senate Bill (SB) 375	SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions. Under SB 375, CARB is required, in consultation with the State's Metropolitan Planning Organizations, to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035.	Consistent. As demonstrated in Table GHG-2, the Project would comply with the San Joaquin Council of Governments (SJCOG) 2022 Regional Transportation Plan/Sustainable Communities Strategy (2022 RTP/SCS), and therefore, the Project would be consistent with SB 375.
WATER		
CCR, Title 24, Building Standards Code	Title 24 includes water efficiency requirements for new residential and non- residential uses.	Mandatory Compliance. Refer to the discussion under 2022 Title 24 Building Standards Code and CALGreen Code, above.
Water Conservation Act of 2009 (Senate Bill X7-7)	The Water Conservation Act of 2009 sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. Each urban retail water supplier shall develop water use targets to meet this goal. This is an implementing measure of the Water Sector of the AB 32 Scoping Plan. Reduction in water consumption directly reduces the energy necessary and the associated emissions to convene, treat, and distribute the water; it also reduces emissions from wastewater treatment.	Consistent. Refer to the discussion under 2022 Title 24 Building Standards Code and CALGreen Code, above.

SOLID WASTE		
California Integrated Waste Management Act (IWMA) of 1989 and Assembly Bill (AB) 341	The IWMA mandates that State agencies develop and implement an integrated waste management plan which outlines the steps to divert at least 50 percent of solid waste from disposal facilities. AB 341 directs the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling and sets a Statewide goal for 75 percent disposal reduction by the year 2020.	Mandatory Compliance. The Project would be required to comply with AB 341 which requires multifamily residential dwelling of five units or more to arrange for recycling services. This would reduce the overall amount of solid waste disposed of at landfills. The decrease in solid waste would in return decrease the amount of methane released from decomposing solid waste.

SOURCE: CALIFORNIA AIR RESOURCE BOARD, 2022 SCOPING PLAN. AVAILABLE: HTTPS://WW2.ARB.CA.GOV/RESOURCES/DOCUMENTS/2022-SCOPING-PLAN-DOCUMENTS

CONSISTENCY WITH SJCOG'S 2022 RTP/SCS

The proposed Project is analyzed for consistency with the strategies contained in the latest adopted SJCOG RTP/SCS (i.e. SJCOG's 2022 RTP/SCS). With the passage of SB 375 in 2008, metropolitan planning organizations were required to develop an SCS, which must demonstrate an ambitious, yet achievable, approach to how land use development and transportation can work together to meet greenhouse gas emission reduction targets for cars and light trucks. These targets, set by the California Air Resources Board, call for the region to reduce per capita emissions. Table 3.7-4 below provides this consistency analysis.

TABLE 3.7-4: PROJECT CONSISTENCY WITH SJCOG'S 2022 RTP/SCS

RTP/SCS POLICY	*PROJECT CONSISTENCY*
Policy 1: Enhance the Environment for Existing and Future Generations and Conserve Energy	**Consistent**. The proposed Project would meet the requirements of Title 24 for energy efficient design.
Policy 2: Maximize Mobility and Accessibility	**Consistent**. The proposed Project is compatible to the surrounding area. The proposed Project's location will provide strategic access for goods.
Policy 3: Increase Safety and Security	**Consistent**. The proposed Project is located in an Industrial area, away from sensitive land uses that are more vulnerable to vehicle safety risks.
Policy 4: Preserve the Efficiency of the Existing Transportation System	**Consistent**. The proposed Project will facilitate goods movement in the Tracy area and thereby increasing the efficiency of the existing transportation system.
Policy 5: Support Economic Vitality	**Consistent**. The proposed Project improves freight access to a key strategic economic center, promotes the safe and efficient movement of goods by truck, and supports the implementation of transportation improvements adjacent to the Project site (since the Project would pay its fair share of traffic improvements).
Policy 6: Promote Interagency Coordination and Public Participation for Transportation Decision-Making and Planning Efforts	**Not Applicable**. The proposed Project is not a transportation project.
Policy 7: Maximize Cost-Effectiveness	**Consistent**. The proposed Project is located in an area that has been planned for in the City's General Plan for industrial uses such as the proposed Project. Moreover,

RTP/SCS POLICY	*PROJECT CONSISTENCY*
	the proposed Project utilizes existing transportation corridors.
Policy 8: Improve the Quality of Life for Residents	**Consistent**. The proposed Project implements an industrial Project in an area that has been planned for in the General Plan for industrial land uses, located away from sensitive land uses such as large residential communities. Therefore, the proposed Project avoids being sited in an area that would be highly sensitive to the physical environmental impacts associated with the proposed Project, thereby maintaining quality of life for residents in the City of Tracy and the region.

SOURCE: SAN JOAQUIN COUNCIL OF GOVERNMENTS (SJCOG). 2022. THE 2022 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY (RTP/SCS). ADOPTED AUGUST 2022. WEBSITE: HTTPS://SJCOG.ORG/608/ADOPTED-2022-RTPSCS-PLAN

EXECUTIVE ORDER S-3-05

The Executive Order S-3-05 2050 target has not been codified by legislation. However, studies have shown that, in order to meet the 2050 target, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the project's impacts further relative to the 2050 goal is speculative for purposes of CEQA.

The CARB recognizes that AB 32 establishes an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: "These [greenhouse gas emission reduction] measures also put the State on a path to meet the long-term 2050 goal of reducing California's GHG emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to stabilize the climate." In addition, the CARB's First Update to the Scoping Plan "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by the CARB would serve to reduce the proposed project's post-2020 emissions level to the extent applicable by law:

- Energy Sector: Continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the proposed project's emissions level. Additionally, further additions to California's renewable resource portfolio would favorably influence the project's emissions level.
- Transportation Sector: Anticipated deployment of improved vehicle efficiency, zero-emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the project's emissions level.
- Water Sector: The project's emissions level will be reduced as a result of further utilization to water conservation technologies.

- Waste Management Sector: Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the project's emissions level.

In his January 2015 inaugural address, Governor Brown expressed a commitment to achieve "three ambitious goals" that he wanted to see accomplished by 2030 to reduce the State's GHG emissions:

- Increasing the State's Renewable Portfolio Standard from 33 percent in 2020 to 50 percent in 2030;
- Cutting the petroleum use in cars and trucks in half; and
- Doubling the efficiency of existing buildings and making heating fuels cleaner.

These expressions of executive branch policy may be manifested in adopted legislative or regulatory action through the State agencies and departments responsible for achieving the State's environmental policy objectives, particularly those relating to global climate change.[4]

Further, studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the Statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target.[5]

Given the proportional contribution of mobile source-related GHG emissions to the State's inventory, recent studies also show that relatively new trends—such as the increasing importance of web-based shopping, the emergence of different driving patterns, and the increasing effect of web-based applications on transportation choices—are beginning to substantially influence transportation choices and the energy used by transportation modes. These factors have changed the direction of transportation trends in recent years and will require the creation of new models to effectively analyze future transportation patterns and the corresponding effect on GHG emissions. For the reasons described above, the proposed project's post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets.

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the Project would be required to comply with whatever measures are enacted that State lawmakers decide would lead to an 80 percent

[4] Brown, Edmund G. Jr. 2015. Press Release: California Establishes Most Ambitious Greenhouse Gas Goal in North America. April 29.
Website: https://www.gov.ca.gov/news.php?id=18938. Accessed February 2, 2021.
[5] Energy and Environmental Economics, 2015. Pathways to Deep Carbonization in the United States.
Website: http://deepdecarbonization.org/wp-content/uploads/2015/11/US_Deep_Decarbonization_Technical_Report_Exec_Summary.pdf. Accessed June 8, 2022.

reduction below 1990 levels by 2050. In its 2008 Scoping Plan, the CARB acknowledged that the "measures needed to meet the 2050 are too far in the future to define in detail." In the 2017 Scoping Plan Update, however, the ARB generally described the type of activities required to achieve the 2050 target: "energy demand reduction through efficiency and activity changes; large scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately." The 2022 Scoping Plan Update provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target.

CONCLUSION

The proposed Project would be consistent with relevant plans, policies, and regulations associated with GHGs, notably the 2022 Scoping Plan, and the SJCOG's 2022 RTP/SCS. Taking into account the proposed Project's emissions, and the progress being made by the State toward reducing emissions in key sectors such as transportation, industry, and electricity, the Project would be consistent with State GHG Plans and would not impede the State's goals of reducing GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050. The proposed Project would make a reasonable fair share contribution to the State's GHG reduction goals, and therefore, the proposed Project's GHG emissions would be considered to have a ***less than significant*** impact.

The purpose of this section is to disclose and analyze the potential impacts associated with hazards and hazardous materials related to the Project site and general vicinity, and to analyze the potential for exposure of people to hazards and hazardous materials as the Project is built and operated in the future. This section is based in part on the following: *San Joaquin County General Plan* (San Joaquin County, 2016), *City of Tracy General Plan* (City of Tracy, 2011), *City of Tracy General Plan EIR* (City of Tracy, 2011), and the *West Schulte Road Phase I Environmental Site Assessment (Phase 1 ESA)* (ATC Group Services LLC, November 2020).

Three comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the Department of Justice, San Luis & Delta-Mendota Water Authority (SLDMWA), and San Joaquin County Environmental Health Department. Full comments received regarding other topics are included in Appendix A.

As discussed in the Initial Study (see Appendix A), the nearest school to the Project site is John C Kimball High School (4.1 miles northeast). As such, the Project would not emit acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Additionally, the Project site currently connects to an existing network of City streets. The proposed roadway circulation improvements would allow for greater emergency access relative to existing conditions. The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Further, the Project site is not located within a very high fire hazard severity zone; therefore, the thresholds associated with the Project's proximity to state responsibility areas or lands classified as very high fire hazard severity zones are not applicable to the Project and there is no impact associated with these thresholds. The Project would have no impact or less than significant impacts related to these topics and they will not be addressed further.

3.8.1 ENVIRONMENTAL SETTING

PHYSICAL SETTING

Project Location

The Project site consists of one parcel, including two distinct planning boundaries defined in Chapter 2.0 Project Description, totaling approximately 21.92 acres of agricultural and residential land. According to information obtained from the San Joaquin County Assessor's Website, the property is identified as Assessor's Parcel Number (APN) 209-230-250 and is identified as being located within Section 35, Township 2 South, Range 4 East of the Mount Diablo Base and Meridian, San Joaquin County, California. Figures 2.0-1 and 2.0-2 in Chapter 2.0, Project Description, illustrate the regional location and Project vicinity.

Existing Site Uses

The Project site is comprised of one parcel, including two distinct planning boundaries totaling approximately 21.92 acres. Four residences and six buildings used for livestock, processing, and storage are present, in addition to several small sheds and animal shelters. Two connected dairy

ponds, dry at the time of the site visit completed as part of the Phase I ESA, are present along the central eastern edge of the site.

Existing Surrounding Uses

The Project site is surrounded by a variety of undeveloped and developed land uses. Uses adjacent to the east and south of the Project site include agricultural land. The parcel to the west of the Project site is currently a CAL Fire Station. Existing industrial uses are also located to the north and northeast of the Project site. Further, an industrial warehouse project, the Costco Depot Annexation Project, is currently (as of March 2023) proposed adjacent east of the Project site.

Site Topography

The Project site is located on the United States Geologic Survey (USGS) 7.5-Minute Series Tracy, California, topographic quadrangle, dated 2012. The Project site is relatively flat and has an elevation of approximately 180 feet above mean sea level (msl). The topography in the vicinity of the property slopes to the northeast.

Site Soils

According to the Phase I ESA, the United States Department of Agriculture (USDA) Soil Conservation Service Soil Survey of San Joaquin County, California (dated October 1992), classifies the surficial soils in the vicinity of the Project site as the Capay clay map unit, which is characterized as moderately well drained, fine textured soils that are clayey, have a high water table, or are shallow to an impervious layer. This soil type appears to meet the definition of partially hydric soils and are listed on the USDA Natural Resources Conservation Service National Hydric Soils List. Furthermore, a Custom Soil Survey was completed for the Project site using the National Resource Conservation Service (NRCS) Web Soil Survey program. The NRCS Soils Map is provided in Figure 3.6-1 in Section 3.6, Geology and Soils.

HAZARDS ASSESSMENT

For the purposes of this EIR, "hazardous material" is defined as provided in California Health & Safety Code, Section 25501:

- Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.

"Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

"Hazardous waste" is a subset of hazardous materials. For the purposes of this EIR, the definition of hazardous waste is essentially the same as that in the California Health & Safety Code, Section 25517, and in the California Code of Regulations (CCR), Title 22, Section 66261.2:

- Hazardous wastes are wastes that, because of their quantity, concentration, physical, chemical, or infectious characteristics, may either cause, or significantly contribute to, an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

CCR Title 22 categorizes hazardous waste into hazard classes according to specific characteristics of ignitibility, corrosivity, reactivity, or toxicity. Hazardous waste with any of these characteristics is also known as a Resource Conservation and Recovery Act (RCRA) waste.

Hazardous materials can be categorized as hazardous non-radioactive chemical materials, radioactive materials, toxic materials, and biohazardous materials. The previous definitions are adequate for non-radioactive hazardous chemicals. Radioactive and biohazardous materials are further defined as follows:

- Radioactive materials contain atoms with unstable nuclei that spontaneously emit ionizing radiation to increase their stability.
- Radioactive wastes are radioactive materials that are discarded (including wastes in storage) or abandoned.
- Toxic wastes are harmful or fatal when ingested or absorbed (e.g., containing mercury, lead). When toxic wastes are land disposed, contaminated liquid may leach from the waste and pollute groundwater.
- Biohazardous materials include materials containing certain infectious agents (microorganisms, bacteria, molds, parasites, and viruses) that cause or significantly contribute to increased human mortality or organisms capable of being communicated by invading and multiplying in body tissues.
- Medical wastes include both biohazardous wastes (byproducts of biohazardous materials) and sharps (devices capable of cutting or piercing, such as hypodermic needles, razor blades, and broken glass) resulting from the diagnosis, treatment, or immunization of human beings, or research pertaining to these activities.

There are countless categories of hazardous materials and hazardous wastes that could be found on any given property based on past uses. Some common examples include agrichemicals (chlorinated herbicides, organophosphate pesticides, and organochlorine pesticides, such as such as Mecoprop (MCPP), Dinoseb, chlordane, dichloro-diphenyltrichloroethane (DDT), and dichloro-diphenyl-dichloroethylene (DDE)), petroleum based products (oil, gasoline, diesel fuel), a variety of chemicals including paints, cleaners, and solvents, and asbestos-containing or lead-containing materials (e.g., paint, sealants, pipe solder).

Adjoining Properties

Properties surrounding the site appeared to be used for agricultural and industrial purposes, with the exception of the CAL Fire station located to the west of the Project site. No potential environmental conditions of adjoining properties were identified to the east, south, and west of the Project site. Various aboveground storage tanks (ASTs) were identified north of the Project site

associated with the industrial facilities. However, these off-site ASTs are not considered to be an environmental concern to the Project site.

Site Reconnaissance

According to the Phase I ESA, site reconnaissance was conducted on October 14 and 19, 2020. The site reconnaissance consisted of visual and/or physical observations of the property and improvements, adjoining sites as viewed from the property, and the surrounding area based on visual observations made during the trip to and from the property. Unimproved portions of the property were observed along the perimeter and in a general grid pattern in safely accessible areas, if accessible and possible. Building exteriors were observed along the perimeter from the ground, unless described otherwise. Building interiors were not observed as access was not provided.

The site reconnaissance did not observe evidence of hazardous substance use, storage, and disposal on the property or any evidence of Underground Storage Tanks (USTs) on the property. During the site reconnaissance, two active Liquid Petroleum Gas (LPG) or propane aboveground storage tanks (ASTs) of approximately 400 lbs and 800 lbs capacity at the property, as well as one inactive 400 lb LPG tank, two active water tanks (approximately 600 gallons and 2,000 gallons), and approximately one dozen inactive and stored water tanks (approximately 1,000 gallons each) were identified. The active LPG tanks were associated with the occupied residences, and the active water tanks were used to store water from the two water wells located on the property and provide pressure for the water supplied to the residences. The water and LPG ASTs at the property are not considered to represent a Recognized Environmental Condition (RECs) to the property.

The site reconnaissance did not observe the use or storage of petroleum products on the property other than retail quantities of motor oil, and roughly two dozen motor vehicles in various conditions. Due to the observed quantities and conditions, the derelict vehicles and retail packaging storage are not considered RECs. Some vehicles may represent de minimis conditions based on mechanical conditions that could not be observed during the reconnaissance.

The site reconnaissance observed two pole-mounted transformers along the central driveway near the residences. The site reconnaissance did not observe labels regarding the PCB status of the transformers; however, based on discussion with the owner regarding electrical service (Pacific Gas & Electric), it is unlikely that the transformers are PCB-containing due to past statements by PG&E that they do not currently operate PCB-containing equipment. Evidence of leaks, stains, or other signs of release was not observed. Should a release occur the utility company would be responsible for the mitigation and replacement of the unit. Based on the observed conditions, the pole-mounted transformers are not considered to represent a REC.

The site reconnaissance did not observe the presence of unidentified substance containers on the property. The site reconnaissance did not observe evidence of the generation, storage or disposal of nonhazardous solid waste in, on or at the property, with the exception of scattered household debris throughout the south-central portion of the property. The site reconnaissance did not observe any evidence of hazardous substances, or evidence of staining or releases associated with

the scattered household debris observed, though tall grass hampered observations. The observed household debris represents a de minimis condition.

The site reconnaissance observed evidence of wastewater generated, treated or discharged in, on or at the property or to adjoining properties. This included stormwater associated with rain events which Percolate into property soil or runoff to adjoining properties, and domestic wastewater (septic systems) associated with each residence. The site reconnaissance did not observe evidence of leaks, stains, or other signs of release. The identified wastewater sources do not represent a REC based on observed conditions. No municipal sewer connections were observed on the property or nearby on the peripheral roads. The owner confirmed that each residence has an associated septic system located generally to the north of each building. The use of septic systems in a residential context does not represent a REC for the property. Stormwater at the property is expected to infiltrate the ground surface or runoff to adjoining properties.

The site reconnaissance observed two inactive dairy ponds on the property. According to the property owner, these have been inactive since 1987, and were cleaned when they were retired. The eastern pond is plumbed to accept waste (cow manure and urine) via a surface channel from the dairy yard to the south, and transfer liquids to the western pond. It also, through a sump located at the south end, returns water to the top end of the dairy waste channel for re-use. The western pond appears to have an input pipe from the nearby canal to aid in dilution and water replacement during cleaning. The ponds and related plumbing remain in place. Based on the use of the ponds to collect surface dairy runoff including manure when active, their long inactive status, and observed conditions, the dairy ponds do not represent a REC for the property.

The site reconnaissance did not observe evidence of drains or sumps on the property other than those associated with the recycling of water from the dairy ponds (Section 6.10). A return sump vault, water culvert vault, and valve vaults were observed at the south end of the ponds.

The site reconnaissance observed two water wells near the center of the property, with two associated aboveground storage tanks (referenced in Section 6.4). The EDR Radius Report includes records for two wells on the property with depths of 305 and 265 feet, respectively. The water supply wells do not represent a REC for the property.

Historical Use Information

The property has been agricultural land since the 1930s. The historical use of the property as agricultural land indicates a potential that agricultural chemicals may have been applied at some time. On cultivated land where agricultural chemicals have been applied, it is not uncommon to find residual fertilizers, pesticides, herbicides or related compounds in the soil. During the site and area reconnaissance and review of historical information, no evidence of concentrated chemical use was identified on or near the property. In general, except in storage or mixing areas where accumulation due to spillage may have occurred, the application of pesticides and herbicides for agricultural purposes does not usually require a remedial response by regulatory agencies. Therefore, the historical agricultural property use is not considered to represent a REC to the property.

AERIAL PHOTOGRAPHS

The *Phase I ESA* included a review of aerial photographs of the Project site and general vicinity obtained from historical photograph collections. Review of aerial photographs did not indicate the presence of bulk chemical storage or structures where chemicals may have been stored, herbicide/pesticide/fertilizer loading areas, or other indications of bulk product storage or handling areas on or near the property. The review of aerial photographs did not identify past uses indicating REC at the property or the surrounding properties.

ENVIRONMENTAL RECORDS

A search of local, state, and federal agency databases for the Project site and known contaminated sites in the vicinity was performed. None of the parcels in the Project site were found to contain any known contamination.

The U.S. Environmental Protection Agency (EPA) Toxic Release Inventory (TRI) does not list data on disposal or other releases of toxic chemicals on the Project site (USEPA, 2015). The nearest TRI site is located at 14700 West Schulte Road, approximately 1.09 miles east of the Project site.

The California Department of Toxic Substances Control (DTSC) maintains the *Envirostor Data Management System*, which provides information on hazardous waste facilities (both permitted and corrective action) as well as any available site cleanup information. There are no sites listed in the Envirostor database within the Project site or within one half mile of the Project site. The nearest site listed on the Envirostor database is located at 24606 S. Lammers Road, approximately 2.0 miles northeast of the Project site. This site, the Kimball High School Parcel 4 site, was investigated for potential contaminants of concern. The investigation concluded that there are no contaminants of concern at the Kimball High School Parcel 4 site and the site received a "No Action" cleanup status on October 4, 2007.

GeoTracker is the State Water Resources Control Board's (SWRCB's) Internet-accessible database system used by the SWRCB, regional boards, and local agencies to track and archive compliance data from authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from USTs. According to a *GeoTracker* database search, no sites are identified within 0.5 miles of the Project site.

The Solid Waste Information System (SWIS) is a database of solid waste facilities that is maintained by the California Integrated Waste Management Board (CIWMB). The SWIS data identifies active, planned and closed sites. The Project site does not have any active or planned solid waste facilities listed in the database. The nearest active facility, Tracy Material Recovery & T.S. (39-AA-0024), is located approximately 5.99 miles southeast of the Project site at 30703 S. Macarthur Drive, Tracy.

DATABASES

There is a broad list of federal and state databases that provide information for sites with varying potential for risk from the possible existence of hazardous materials. There are numerous redundancies among these various database listings. Below is a brief summary of each.

National Priorities List: The National Priorities List (NPL) of Superfund Sites and Proposed NPL Sites is EPA's database of more than 1,200 sites designated or proposed for priority cleanup under the Superfund program. NPL sites may encompass relatively large areas. The Project site is not listed in this database.

RCRIS System: The Resource Conservation and Recovery Information System (RCRIS) is an EPA database that includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by RCRA. Identification on this list does not indicate that there has been an impact on the environment. The Project site is not listed in this database.

CERCLIS Data: Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) is an EPA database that contains information on potential hazardous waste sites that have been reported to the EPA by states, municipalities, private companies, and individuals, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites that are either proposed for or on the NPL, as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Project site is not listed in this database.

CORRACTS: Corrective Action Report (CORRACTS) is an EPA database that identifies hazardous waste handlers with RCRA corrective action activity. The Project site is not listed in this database.

Cortese Database: The Cortese database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release, and all solid waste disposal facilities from which there is known hazardous substance migration. The source of this database is the California Environmental Protection Agency (Cal-EPA) and are found in the GeoTracker database. The Project site is not listed in this database.

GeoTracker has replaced past databases, such as the Leaking Underground Storage Tank Information System (LUSTIS) and the Underground Storage Tank (UST) database. Permitted USTs are not located in the Project site.

Subsurface Vapor Migration

The Phase I ESA included a limited screening for potential vapor encroachment conditions (VECs) that may affect the property. The VEC screening focused on the current and historical usage of the property and also utilized the aforementioned regulatory agency database report provided by EDR and an EDR Vapor Encroachment Screen (VES) Report to evaluate identified Chemicals of Concern (COCs), including petroleum hydrocarbons. To identify the area of concern (AOC) for contaminated sites with non-petroleum hydrocarbon COCs, The *Phase I ESA* utilized the approximate minimum search distance defined by ASTM E 2600-15 of 1,760 feet (1/3 mile) from the property boundary for COC-contaminated sites. For sites contaminated with petroleum hydrocarbon COCs, The *Phase I ESA* utilized the AOC approximate minimum search distance of 528 feet (1/10 mile). The AOC was adjusted accordingly based on review of physical setting characteristics, known release information, property and land features, groundwater flow direction, and soil type, et al.

ASTM's Vapor Encroachment guidance indicates that when groundwater flow direction can be estimated or determined, the cross-gradient or downgradient radius distances can be significantly reduced. The EDR VES report calculates the reduced AOC distances when considering groundwater flow direction by utilizing the following default distances, which were determined using the Buonicore Methodology: (non-petroleum hydrocarbon COCs) 1,760 feet in the upgradient direction; 365 feet in the cross-gradient direction; and 100 feet in the downgradient direction and (petroleum hydrocarbon COCs) 528 feet in the upgradient direction; 165 feet in the cross-gradient direction if Light, Non-Aqueous Phase Liquid, (LNAPL i.e. floating product) is suspected; 95 feet in the cross-gradient direction if no LNAPL is suspected; 100 feet in the downgradient direction (LNAPL suspected); and 30 feet in the downgradient position (LNAPL not suspected).

The *Phase I ESA* included potential sources of COCs from the facilities reported on the EDR database report and VES report. No VECs were identified in relation to the property.

Based on applicable AOC distances, assumed groundwater gradient, depth to groundwater, absence of reported releases, lack of registered hazardous waste generation sites, current remediation status/history of contaminated site, preferential pathways, physical setting information and target property use, the remaining sites evaluated under the VES either were ruled out because of the possibility of vapor impact in, on or at the target property was considered not likely.

Hazardous Material Sites

As noted above, the State of California Hazardous Waste and Substances Site List (also known as the “Cortese List”) is a planning document used by the state, local agencies, and developers to comply with the California Environmental Quality Act (CEQA) requirements for providing information about the location of hazardous materials sites. Government Code Section 65962.5 requires the Cal EPA to annually update the Cortese List. The DTSC is responsible for preparing a portion of the information that comprises the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information that is part of the complete list.

GeoTracker is a geographic information system (GIS) that provides online access to environmental data and is the interface to the Geographic Environmental Information Management System (GEIMS), a data warehouse which tracks regulatory data about underground fuel tanks, fuel pipelines, and public drinking water supplies. Searches of the above resources and records identified no hazardous material sites within 0.5-mile of the Project site known to handle and store hazardous materials that are associated with a hazardous material related release or occurrence. The terms "release" or “occurrence” include any means by which a substance could harm the environment: by spilling, leaking, discharging, dumping, injecting, or escaping.

The Phase I ESA identified two facilities closest to the Project site that could potentially impact soil, soil vapor, and groundwater beneath the site. The following summarizes the information for these facilities.

"SHELL PIPELINE CO LP LOCATION NO. 805248 DRUM LOCATION" AND "SHELL OIL COMPANY" (WEST SCHULTE ROAD AND HANSEN ROAD)

These two off-site properties represent one facility. The facility was listed as a Small Quantity Generators (SQG) of hazardous waste in the year 2012, having disposed of ignitable, "benzene" waste. No violations were reported for this facility. The facility was also listed in the Spills, Leaks, Investigations, and Cleanup (SLIC) database as having had a reported release of total petroleum hydrocarbons ("TPH"). Details were not provided in the database listing information. However, based on information obtained from the SWRCB GeoTracker™ database, the release associated with this facility occurred over 3,500 feet to the north of the Project site. Soil and groundwater impacts associated with a crude oil release from pipelines appear to be limited in extent, and based on the distance of this release to the Project site, these listings are not considered likely to have impacted soil, soil vapor or groundwater beneath the Project site.

"TRACY YOUTH SPORTS PARK" (15178 SCHULTE ROAD)

This facility partially adjoins the Project site to the east. It is listed in the SLIC database as having had a release (substance not reported) that affected soil. In June 2006, the City of Tracy prepared an Environmental Impact Report to evaluate the potential environmental impacts from a proposed development of a youth sports park (e.g., baseball, softball, soccer fields, sports/football stadium, and a recreation area) at this location. Environmental impacts noted included increased traffic and regional air quality impacts, and the presence of two PG&E transmission pipelines and one Chevron crude oil pipeline beneath the property. The proposed sports park development was rejected by the City in December 2007. The case for this facility was reportedly open in GeoTracker™ on September 1, 2007 following receipt of the Environmental Impact Report; however, the Regional Water Quality Control Board (RWQCB) indicated it would not be activating the case and considers the case closed. July 24, 2013 a "No Further Action Required Letter" was prepared by the Central Valley RWQCB, which indicated the RWQCB had no files associated with this case.

Transportation of Hazardous Materials

The transportation of hazardous materials within the City of Tracy Planning Area is subject to various federal, state, and local regulations. The following provisions are included in the California Vehicle Code (CVC) and pertain to the transportation of hazardous related materials.

- The Highway Patrol designates the routes in California which are to be used for the transportation of explosives. (Section 31616)
- The CVC applies when the explosives are transported as a delivery service for hire or in quantities in excess of 1,000 pounds. The transportation of explosives in quantities of 1,000 pounds or less, or other than on a public highway, is subject to the California Health and Safety Code. (Section 31601(a))
- It is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery of, or the loading of, such materials. (Section 31602(b) and Section 32104(a))

- When transporting explosives through or into a city for which a route has not been designated by the Highway Patrol, drivers must follow routes as may be prescribed or established by local authorities. (Section 31614(a))
- Inhalation hazards and poison gases are subject to additional safeguards. These materials are highly toxic, spread rapidly, and require rapid and widespread evacuation if there is loss of containment or a fire. The Highway Patrol designates through routes to be used for the transportation of inhalation hazards. It may also designate separate through routes for the transportation of inhalation hazards composed of any chemical rocket propellant. (Section 32100 and Section 32102(b))

In addition to area roadways, hazardous materials are routinely transported on Union Pacific Railroad (UPRR) lines that are roughly one-mile south of the Project boundary. Hazardous materials are transported on these lines. The risk of accidents, and more specifically accidents involving hazardous materials, is relatively low. The U.S. Department of Transportation Federal Railroad Administration found the UPRR company train accident rate to be 4.18 train accidents per one million train miles traveled, resulting in a less than 0.001% chance of an accident. Risk of a railroad accident containing hazardous materials is considered much lower, as only an average of eight accidents involving hazardous material spills occur annually in California.

The Union Pacific Railroad Company implements a security plan in compliance with the Department of Transportation Final Rule 49 CFR Part 172 Hazardous Materials (HM 232): Security Requirements for Offerors and Transporters of Hazardous Materials. The plan includes requirements to enhance the security of transported hazardous materials and ensures proper cleanup procedures in the instance of an accidental release.

3.8.2 REGULATORY SETTING

FEDERAL

The primary federal agencies that are responsible for overseeing regulations and policies regarding hazardous materials are the EPA, Department of Labor Occupational Safety and Health Administration (OSHA), and the Department of Transportation (DOT). Several laws governing the transport, storage, and use of hazardous materials are governed by these agencies as well as oversight for contaminated sites cleanup. Federal laws and regulations that are applicable to hazards and hazardous materials are presented below.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act, as amended, is the basic statute regulating hazardous materials transportation in the United States. The purpose of the law is to provide adequate protection against the risks to life and property inherent in transporting hazardous materials in interstate commerce. This law gives the U.S. Department of Transportation (USDOT) and other agencies the authority to issue and enforce rules and regulations governing the safe transportation of hazardous materials (DOE 2002).

Natural Gas Pipeline Safety Act

The Natural Gas Pipeline Safety Act authorizes the U.S. Department of Transportation Office of Pipeline Safety to regulate pipeline transportation of natural (flammable, toxic, or corrosive) gas and other gases as well as the transportation and storage of liquefied natural gas. The Office of Pipeline Safety regulates the design, construction, inspection, testing, operation, and maintenance of pipeline facilities. While the federal government is primarily responsible for developing, issuing, and enforcing pipeline safety regulations, the pipeline safety statutes provide for State assumption of the intrastate regulatory, inspection, and enforcement responsibilities under an annual certification. To qualify for certification, a state must adopt the minimum federal regulations and may adopt additional or more stringent regulations as long as they are not incompatible.

Resource Conservation and Recovery Act

The 1976 Federal Resource Conservation and Recovery Act (RCRA) and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the point of generation to their ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

The 1984 RCRA amendments provided the framework for a regulatory program designed to prevent releases from USTs. The program established tank and leak detection standards, including spill and overflow protection devices for new tanks. The tanks must also meet performance standards to ensure that the stored material will not corrode the tanks. The RCRA was further amended in 1988 to set additional standards for USTs.

In July 2015, the EPA revised the federal UST regulation, which strengthened the 1988 federal UST regulations by increasing emphasis on properly operating and maintain UST equipment. The revision added new operation and maintenance requirements and addressed UST systems deferred in the 1988 UST regulation. The purpose of the revision was to help prevent and detect UST releases, which are a leading source of groundwater contamination. To ensure compliance performance measures reflect the 2015 UST regulation, the EPA and the Association of State and Territorial Solid Waste Management Officials coordinated to update existing compliance performance measures and add new measures. The measures required states to switch from tracking compliance against significant operational compliance measures to the more stringent technical compliance rate (TCR) measures. As of June 2020, only 45.6 percent of USTs were in compliance with all TCR categories[1].

Comprehensive Environmental Response, Compensation, and Liability Act

CERCLA introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. CERCLA was intended to be comprehensive in encompassing both the prevention of, and response to, uncontrolled hazardous substances releases. CERCLA deals with environmental response, providing mechanisms for reacting to

[1] EPA. *Semiannual Report of UST Performance Measures Mid Fiscal Year 2020*. June 2020. Access: https://www.epa.gov/sites/production/files/2020-06/documents/ca-20-12.pdf

emergencies and to chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

STATE

The primary state agencies that are responsible for overseeing regulations and policies regarding hazardous materials are the California Office of Emergency Services (OES), Cal-EPA, DTSC, California Department of Transportation (Caltrans), California Highway Patrol (CHP), State Water Quality Control Board, and the California Air Resources Board. Several laws governing the generation, transport, and disposal of hazardous materials are administered by these agencies. State laws and regulations that are applicable to hazards and hazardous materials are presented below.

California Health and Safety Code

Cal-EPA has established rules governing the use of hazardous materials and the management of hazardous wastes. Many of these regulations are embodied in the California Health and Safety Code. The code includes regulations that govern safe drinking water, substances control, land reuse and revitalization, remediation, restoration, and methamphetamine contaminated cleanups.

California Code of Regulations Title 22 and Title 26

The California Code of Regulations (CCR) Title 22 provides state regulations for hazardous materials, and CCR Title 26 provides regulation of hazardous materials management. In 1996, Cal-EPA established the "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program" (Unified Program) which consolidated the six administrative components of hazardous waste and materials into one program.

LOCAL

City of Tracy General Plan

The City of Tracy General Plan includes several policies that are relevant to hazards and hazardous materials. General Plan policies applicable to the Project are identified below:

POLICIES: PUBLIC FACILITIES ELEMENT

- PF-1.1-P1. The City shall provide fire and emergency response facilities and personnel necessary to meet residential and employment growth in the city.
- PF-1.2-P1. Fire hazards shall be identified and mitigated during the project review and approval process.
- PF-1.2-P6. The City shall use physical site planning as an effective means of preventing wildland fires by requiring the following:
    - Drought-resistant native plants incorporated into public works projects.

- More than one ingress/egress road to any neighborhood in areas subject to wildland fires.
- Roadways with grades that accommodate emergency vehicles.
- Structures that are constructed of fire-resistant materials.

POLICIES: SAFETY ELEMENT

- SA-4.1-P1. Adequate separation shall be provided between areas where hazardous materials are present and sensitive uses such as schools, residences and public facilities.
- SA-4.1-P2. When reviewing applications for new development and redevelopment in areas historically used for commercial or industrial uses, developers shall conduct the necessary level of environmental investigations to ensure that soils, groundwater and buildings affected by hazardous material releases from prior land uses and lead or asbestos potentially present in building materials, will not have a negative impact on the natural environment or health and safety of future property owners or users.
- SA-4.1-P3. The safe transport of hazardous materials through Tracy shall be promoted by implementing the following measures:
  - Maintain formally-designated hazardous material carrier routes to direct hazardous materials away from populated and other sensitive areas.
  - Prohibit the parking of vehicles transporting hazardous materials on City streets.
  - Require that new pipelines and other channels carrying hazardous materials avoid residential areas and other immobile populations to the extent possible.
- SA-4.1-P4. Emergency response plans shall be submitted as part of use applications for all large generators of hazardous waste.
- SA-4.1-P5. The City shall continue to encourage the reduction of solid and hazardous wastes generated within the City, in accordance with countywide plans.
- SA-4.1-P6. The City shall partner with San Joaquin County to implement the Hazardous Materials Area Plan.

Tracy Municipal Code

The City of Tracy's Municipal Code (Code) addresses a variety of hazards and related topics, including hazardous materials and waste and airport safety.

The California Fire Code is adopted as Chapter 9.06 of the Code. Code Section 5.24.130 requires notification of the City, EPA Regional Waste Management Division Director, and "state hazardous waste authorities" (i.e., DTSC) of all hazardous waste discharges to the sewer. Code Section 5.24.260 requires that waste not permitted to be discharged into the community sewer must be transported to a State-approved disposal site, and the required "Waste Haulers Report" must be completed and a copy kept at the facility and the waste hauling manifest must be made available upon demand by the City, and retained for a minimum of three years. Code Article 27 establishes an Airport Overlay zone intended to regulate land uses adjacent to the Tracy Municipal Airport by limiting activities and construction in aircraft approach areas within the City limits. Code Chapter 3.24 provides for the preparation and carrying out of plans for the protection of persons and property within the City in

the event of an emergency, including from fire or pollution. All officers and employees of this City, together with volunteer and other forces enrolled to aid them during an emergency, shall constitute the Emergency Organization of the City. This chapter provides for the direction of the Emergency Organization, and coordination of the emergency functions of the City and all other public agencies, corporations, organizations, and affected private persons.

Tracy Local Hazard Mitigation Plan

On March 17, 2020, the Tracy City Council adopted the City of Tracy Local Hazard Mitigation Plan (Tracy LHMP), which guides hazard mitigation planning to better protect the people and property of the City from the effects of hazard events. The Tracy LHMP was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 so that Tracy would be eligible for the Federal Emergency Management Agency's (FEMA) Pre-Disaster Mitigation and Hazard Mitigation Grant programs. The Tracy LHMP includes a risk assessment that identified and profiled hazards that pose a risk to the City of Tracy, assessed the City's vulnerability to these hazards, and examined the capabilities in place to mitigate them.

Certified Unified Program Agency (CUPA)

The California Environmental Protection Agency designates specific local agencies as Certified Unified Program Agencies (CUPA), typically at the county level. The San Joaquin County Department of Environmental Health is the CUPA designated for San Joaquin County. The San Joaquin County Department of Environmental Health is responsible for the implementation of statewide programs within its jurisdiction, including: Underground storage of hazardous substances (USTs), Hazardous Materials Business Plan (HMP) requirements, California Accidental Release Prevention (Cal-ARP) program, etc. Implementation of these programs involves permitting, inspecting, providing education/guidance, investigations, and enforcement.

San Joaquin County Office of Emergency Services

The San Joaquin County Office of Emergency Services administers the State's Hazardous Material Release Response Plan and Inventories and the Accidental Release Prevention (Cal-ARP) programs. Additionally, the Office of Emergency Services has a Hazardous Material Area Plan designed to protect human health and the environment through hazardous materials emergency planning, response and agency coordination and community right-to-know programs. The Hazardous Material Area Plan, among other provisions, provides guidance for businesses required to file a hazardous materials business plan. Under Chapter 6.95 of the California Health and Safety Code and the Federal Resource Conservation and Recovery Act, any business storing quantities of hazardous materials greater than 55 gallons of liquid, 500 pounds of solid or 200 cubic feet of some compressed gases must file a hazardous materials business plan annually that establishes incident prevention measures, hazardous material handing protocols and emergency response and evacuation procedures. The City of Tracy Police Department and the South County Fire Authority work with San Joaquin County to implement the Hazardous Material Area Plan.

The Office of Emergency Services also administers the Emergency Planning and Community Right-to-Know program for Tracy. The Office of Emergency Services has also prepared the Emergency

Operations Plan, which is known as the basic emergency plan for San Joaquin County. The Emergency Operations Plan is intended to facilitate multiple-agency and multiple jurisdictional coordination, particularly among local, state, and federal agencies in emergency management, and establish a framework for an effective system of comprehensive emergency management.

3.8.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact from hazards and hazardous materials if it will:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; and/or
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, create a significant hazard to the public or the environment.

IMPACT DISCUSSIONS AND MITIGATION MEASURES

Impact 3.8-1: Potential to create a significant hazard through the routine transport, use, or disposal of hazardous materials or through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Less than Significant with Mitigation)

CONSTRUCTION PHASE IMPACTS

Construction of the proposed Project would likely require the use of petroleum-based products (oil, gasoline, diesel fuel), and a variety of chemicals including paints, cleaners, and solvents. The use of these materials will pose a reasonable risk of release into the environment if not properly handled, stored, and transported.

Construction workers and the general public could be exposed to hazards and hazardous materials as a result of improper handling or use during construction activities (particularly by untrained personnel); transportation accidents; or fires, or other emergencies. Construction workers could also be exposed to hazards associated with accidental releases of hazardous materials, which could result in significant impacts to the health and welfare of people and/or wildlife. Additionally, an accidental release into the environment could result in the contamination of water, habitat, and countless resources. The preparation a Project-specific Stormwater Pollution Prevention Plan (SWPPP) is a statutory requirement of the Regional Water Quality Control Board. The SWPPP is required to include Project-specific best management measures that are designed to control erosion

and the loss of topsoil to the extent practicable using best management practices (BMPs) that the RWQCB has deemed effective in controlling erosion, sedimentation, and runoff during construction activities, which reduces the risk of accidental release of hazardous materials into the environment.

The proposed Project would also be required to comply with regulations on the transportation of hazardous materials codified in 49 CFR 173 and 49 CFR 177 and CCR Title 26, Division 6. These regulations, which are under the jurisdiction of Caltrans and the CHP, provide specific packaging requirements, define unacceptable hazardous materials shipments, and prescribe safe-transit practices by carriers of hazardous materials. Compliance with these regulations would reduce the risk of exposure to humans and the environment related to the transportation of hazardous materials.

Hazardous materials regulations, which are codified in CCR Titles 8 and 22, and their enabling legislation set forth in Chapter 6.5 (Section 25100 et seq.) of the California Health and Safety Code, were established at the State level to ensure compliance with federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. Construction specifications would include the following requirements in compliance with applicable regulations and codes, including, but not limited to CCR Titles 8 and 22, International Fire Code, and Division 20 of the California Health and Safety Code: all reserve fuel supplies and hazardous materials must be stored within the confines of a designated construction area; equipment refueling and maintenance must take place only within the staging area; and construction vehicles shall be inspected daily for leaks. Off-site activities (e.g., utility construction) would also be required to comply with these regulations. These regulations and codes must be implemented, as appropriate, and are monitored by the State and/or local jurisdictions, including the San Joaquin County Department of Environmental Health and the South San Joaquin County Fire Authority (SSJCFA).

Contractors would be required to comply with Cal-EPA's Unified Program; regulated activities would be managed by San Joaquin County Department of Environmental Health, the designated CUPA for San Joaquin County, in accordance with the regulations included in the Unified Program (e.g., hazardous materials release response plans and inventories, California UFC hazardous material management plans and inventories). Additionally, in the event that hazardous materials are discovered during construction, a Soils Management Plan (SMP) will need to be submitted and approved by the San Joaquin County Department of Environmental Health, as required by Mitigation Measure 3.8-1. The SMP will establish management practices for handling hazardous materials, including fuels, paints, cleaners, solvents, etc., during construction. Such compliance would reduce the potential for accidental release of hazardous materials during construction of the proposed Project. As a result, it would lessen the risk of exposure of construction workers and the public to accidental release of hazardous materials, as well as the demand for incident emergency response.

Any operations that involve the use of hazardous materials would be required to have the hazardous material transported, stored, used, and disposed of in compliance with local, state, and federal regulations. The San Joaquin County Department of Environmental Health is the CUPA for San Joaquin County and is responsible for the implementation of statewide programs within the city including Hazardous Materials Business Plan (HMBP) requirements, among numerous other programs. Additionally, businesses are regulated by Cal/OSHA and are therefore required to ensure

employee safety. Specific requirements include identifying hazardous materials in the workplace, providing safety information to workers that handle hazardous materials, and adequately training workers. To further ensure the safety of employees, and reduce the potential for accidental release of hazardous materials into the environment during construction, the applicant must submit a HMBP to San Joaquin County Department of Environmental Health for review and approval prior to bringing hazardous materials onsite, as required by Mitigation Measure 3.8-2.

Development of the Project would involve site grading, excavation for utilities, trenching, backfilling, and the construction of proposed facilities that could result in the exposure of construction workers and the general public to hazardous materials. Like most agricultural and farming operations in the Central Valley, agricultural practices in the area have used agricultural chemicals including pesticides and herbicides as a standard practice. Continuous spraying of crops over many years can potentially result in a residual buildup of pesticides, in farm soils. Of highest concern relative to agrichemicals are chlorinated herbicides, organophosphate pesticides, and organochlorine pesticides (OCPs), such as such as Mecoprop (MCPP), Dinoseb, chlordane, dichloro-diphenyltrichloroethane (DDT), and dichloro-diphenyl-dichloroethylene (DDE). Mitigation Measure 3.8-3 requires site-specific soil sampling to determine if chemicals of potential concern associated with the historical agricultural uses at the Project site are present in shallow soil at concentrations that would pose a threat to human health.

As part of the Phase I Environmental Site Assessment (ESA) completed for the Project, debris and septic systems were identified on-site. Mitigation Measure 3.8-4 requires that the on-site septic systems be abandoned and removed. Mitigation Measure 3.8-5 requires that all debris/miscellaneous nonhazardous solid waste observed at the site be collected and disposed at an appropriate Solid Waste/Landfill facility.

Buildout of the Project would involve the demolition of the on-site structures, which were originally constructed in 1972. Given the age of the structures, it is likely that asbestos containing building materials and lead-based paints were used in the construction and/or maintenance of the on-site structures. The potential exists for construction workers to be exposed to these hazardous materials. Pursuant to federal (NESHAP), state (8 CCR 1529), and county (SJVAPCD rule 4002) regulations, all suspect asbestos-containing materials would either be presumed to contain asbestos or adequate rebuttal sampling would be conducted by an accredited building inspector prior to demolition. Demolition contractors would be required to follow applicable regulations and guidelines set forth by federal, state, and county regulations. Prior to demolition and/or renovation of structures within the Project, asbestos-containing building material and lead-based paint surveys should be conducted, as required by Mitigation Measure 3.8-6. If hazardous materials are determined to be present at concentrations exceeding applicable ESLs, appropriate remediation would need to be implemented in coordination with the San Joaquin County Environmental Health Department.

Construction activities associated with implementation of the proposed Specific Plan would likely require the use of petroleum-based products (oil, gasoline, diesel fuel), and a variety of chemicals including paints, cleaners, and solvents. The use of these materials would pose a reasonable risk of release into the environment if not properly handled, stored, and transported. Moreover, an

accidental release into the environment during construction could result in the contamination of water, habitat, and countless resources. Compliance with existing regulatory requirements of the Regional Water Quality Control Board, which require the preparation a Project specific Stormwater Pollution Prevention Plan (SWPPP), would be required. The SWPPP is required to include Project specific best management measures that are designed to control erosion and the loss of topsoil to the extent practicable using best management practices (BMPs) that the RWQCB has deemed effective in controlling erosion, sedimentation, and runoff during construction activities.

Additionally, if, during the construction process, the Project applicant or subcontractors generates hazardous waste, the applicant must register with the CUPA as a generator of hazardous waste, obtain an EPA ID# and accumulate, ship and dispose of the hazardous waste per Health and Safety Code Ch. 6.5. (California Hazardous Waste Control Law). Contractors would be required to comply with Cal-EPA's Unified Program; regulated activities would be managed by the Sacramento County EMD, the designated Certified Unified Program Agency for Sacramento County, in accordance with the regulations included in the Unified Program (e.g., hazardous materials release response plans and inventories, California UFC hazardous material management plans and inventories).

Mitigation measures presented below also require a Soils Management Plan (SMP) to be submitted and approved by the San Joaquin County Department of Environmental Health prior to the issuance of a grading permit. The SMP will establish management practices for handling hazardous materials, including fuels, paints, cleaners, solvents, etc., during construction. Additionally, should any on-site water wells be located on-site, Mitigation Measure 3.8-7 requires proper well abandonment measures to be completed under permit and inspection by the San Joaquin County Environmental Health Department.

OPERATIONAL PHASE IMPACTS

The operational phase would occur after construction is completed and business operations commence on a day-to-day basis. The Project would include the construction and subsequent operation of a warehouse and distribution building to support distribution and commerce facilities in the area. The Project would not routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of degreasers, lubricants, and common cleaning agents. If handled appropriately, these materials would not pose a significant risk.

As with construction, operation of the proposed Project is required to be consistent with federal, State, and local laws and regulations addressing hazardous materials management and environmental protection, including, but not limited to 49 CFR 173 and 177, and CCR Title 26, Division 6 for transportation of hazardous materials, and CCR Titles 8 and 22, Uniform Fire Code, and Division 20 of the California Health and Safety Code for routine use of hazardous materials. These regulations and codes must be implemented, as appropriate, and are monitored by the State and/or local jurisdictions, including Caltrans, the CHP, the San Joaquin County Department of Environmental Health.

CONCLUSION

Overall, consistency with federal, State, and local laws and regulations related to the handling of hazardous materials discussed above and implementation of the following Mitigation Measures, as well as the preparation a Project-specific Stormwater Pollution Prevention Plan (SWPPP) as a statutory requirement of the proposed Project would ensure that these potential impacts are reduced to a ***less than significant*** level.

MITIGATION MEASURE(S)

Mitigation Measure 3.8-1*: In the event that hazardous materials are encountered during construction, a Soils Management Plan (SMP) shall be submitted and approved by the San Joaquin County Department of Environmental Health. The SMP shall establish management practices for handling hazardous materials, including fuels, paints, cleaners, solvents, etc., during construction. The approved SMP shall be posted and maintained onsite during construction activities and all construction personnel shall acknowledge that they have reviewed and understand the plan.*

Mitigation Measure 3.8-2*: Prior to bringing hazardous materials onsite, the applicant shall submit a Hazardous Materials Business Plan (HMBP) to San Joaquin County Environmental Health Department (CUPA) for review and approval. If during the construction process the applicant or its subcontractors generates hazardous waste, the applicant must register with the CUPA as a generator of hazardous waste, obtain an EPA ID# and accumulate, ship and dispose of the hazardous waste per Health and Safety Code Ch. 6.5. (California Hazardous Waste Control Law).*

Mitigation Measure 3.8-3: *Prior to the issuance of grading permits, the applicant shall hire a qualified consultant to perform site-specific soil sampling to determine if chemicals of potential concern associated with the historical agricultural uses at the Project site are present in shallow soil at concentrations that would pose a threat to human health. In order to achieve this, a soil sampling and analysis workplan shall be submitted for approval by the San Joaquin County Department of Environmental Health prior to the work. The sampling and analysis plan shall meet the requirements of the Department of Toxic Substances Control Interim Guidance for Sampling Agricultural Properties (2008).*

If the sampling results indicate the presence of agrichemicals that exceed commercial screening levels, a removal action workplan shall be prepared in coordination with San Joaquin County Department of Environmental Health. The removal action workplan shall include a detailed engineering plan for conducting the removal action, a description of the onsite contamination, the goals to be achieved by the removal action, and any alternative removal options that were considered and rejected and the basis for that rejection. A no further action letter shall be issued by San Joaquin County Department of Environmental Health upon completion of the removal action. The removal action shall be deemed complete when the confirmation samples exhibit concentrations below the commercial screening levels, which will be established by the agencies.

Mitigation Measure 3.8-4*: Prior to the issuance of grading permits or demolition permits, the septic tank shall be abandoned and removed under permit from the San Joaquin County Department of Environmental Health.*

Mitigation Measure 3.8-5*: Prior to ground disturbing activities, the applicant shall ensure that all debris/miscellaneous nonhazardous solid waste observed at the site during the Phase 1 Environmental Site Assessment be collected and disposed at an appropriate Solid Waste/Landfill facility.*

Mitigation Measure 3.8-6*: Prior to any renovations or demolition of the existing structures within the Project site, surveys shall be conducted for the presence of lead-based paints or products, radon, mold, asbestos containing materials, as recommended by the Phase I ESA (dated November 4, 2020) prepared by ATC for the West Schulte Road property. The intent of the additional testing is to investigate whether any buildings, facilities, or soils contain hazardous materials, including petroleum products, agrichemical (including pesticides, herbicides, diesel, petrochemicals, etc.), asbestos, etc.*

If asbestos-containing materials and/or lead are found in buildings, an Operations and Maintenance (O&M) Program shall be implemented in order to safely manage the suspect ACMs and LBP located at the subject property, and a California Occupational Safety and Health Administration (Cal/OSHA) certified asbestos containing building materials (ACBM) and lead based paint contractor shall be retained to remove the asbestos-containing materials and lead in accordance with EPA and Cal/OSHA standards. In addition, all activities (construction or demolition) in the vicinity of these materials shall comply with Cal/OSHA asbestos and lead worker construction standards. The ACBM and lead shall be disposed of properly at an appropriate offsite disposal facility.

Mitigation Measure 3.8-7*: Prior to any ground disturbance activities within 50 feet of a well on the Project site, the applicant shall hire a licensed well contractor to obtain a well destruction permit for any wells to be abandoned from the San Joaquin County Environmental Health Department, and properly abandon the on-site well(s) Any related subsurface piping, pursuant to review and approval by the City Engineer and the San Joaquin County Environmental Health Department.*

Impact 3.8-2: Is the Project located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, the Project could create a significant hazard to the public or the environment. (No Impact)

The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, ***no impact*** would occur.

This section provides a general description of the existing noise sources in the Project vicinity, a discussion of the regulatory setting, and identifies potential noise impacts associated with the proposed Project. Project impacts are evaluated relative to applicable noise level criteria and to the existing ambient noise environment. Mitigation measures have been identified for significant noise-related impacts. This section is based on the *Environmental Noise Assessment – Schulte Road Warehouse* (Saxelby Acoustics, 2023) (see Appendix F of this EIR).

There was one comment received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the State of California Department of Justice (December 20, 2023). Full comments received are included in Appendix A.

As discussed in the Initial Study (see Appendix A), the proposed Project is not located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport. The closest airport is the Tracy Municipal Airport, located approximately seven miles from the Project site. As such, this impact would be ***less than significant***, and this topic will not be addressed further in this EIR.

3.9.1 ENVIRONMENTAL SETTING

KEY TERMS

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared.
CNEL	Community noise equivalent level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.

$L_{(n)}$	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L_{50} is the sound level exceeded 50 percent of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
SEL	Sound exposure levels. A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.

FUNDAMENTALS OF ACOUSTICS

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds

to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to L_{dn}, but includes a +5 dB penalty for evening noise. Table 3.9-1 lists several examples of the noise levels associated with common situations.

TABLE 3.9-1: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	*NOISE LEVEL (DBA)*	*COMMON INDOOR ACTIVITIES*
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER 2013.

EFFECTS OF NOISE ON PEOPLE

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a 1 dBA change cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING NOISE LEVELS

Existing and Surrounding Land Uses

The Project site is located at 16286 West Schulte Road in unincorporated San Joaquin County, California (see Figures 2.0-1 and 2.0-2 in Chapter 2.0, Project Description). The Project site is within the Tracy Sphere of Influence (SOI) 10-Year Planning Horizon and is immediately adjacent to the Tracy city limits to the north of the site. The southern portion of the Development Area is currently developed with three single-family residences and six ancillary structures. The remainder of the Development Area consists primarily of ruderal grasses which are regularly disced.

The Project site is bound by Hansen Road to the west, West Schulte Road to the north, the Delta Mendota Canal to the south, and a private driveway and vacant land on the east. Surrounding land uses include the Cal Fire Station 26 and vacant land to the west, vacant land previously used for agricultural uses to the east, two industrial warehouses to the north, and the Delta Mendota Canal and agricultural land to the south. The area north of the Project site is part of the Cordes Ranch Specific Plan.

Existing Ambient Noise Levels

To quantify the existing ambient noise environment in the Project vicinity, two continuous (24-hour) noise level measurements were conducted near receptors adjacent to the Project site from December 8th to December 9th, 2021. The noise measurement locations are shown on Figure 3.9-1. The noise level measurement survey results are provided in Table 3.9-2. Appendix B of Appendix F shows the complete results of the continuous noise monitoring at sites LT-1 and LT-2.

TABLE 3.9-2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

SITE	LOCATION	L_{DN}	AVERAGE MEASURED HOURLY NOISE LEVELS, dB					
			DAYTIME (7AM-10PM)			NIGHTTIME (10PM-7AM)		
			L_{EQ}	L_{50}	L_{MAX}	L_{EQ}	L_{50}	L_{MAX}
CONTINUOUS (24-HOUR) NOISE LEVEL MEASUREMENTS								
LT-1	Northern Project Boundary	71	66	60	83	65	57	81
LT-2	Eastern Project Boundary	70	63	56	81	64	56	83

SOURCE: SAXELBY ACOUSTICS, 2023.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value (L_{max}) represents the highest noise level measured during an interval. The average value (L_{eq}) represents the energy average of all of the noise measured during an interval. The median value (L_{50}) represents the sound level exceeded 50 percent of the time during an interval.

Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

EXISTING ROADWAY NOISE LEVELS

To predict existing noise levels due to traffic, the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. While the newer FHWA traffic noise model (TNM 3.0) is required for use on federally funded highway projects, the FHWA RD-77-108 model is still widely used in the industry and recognized as an accurate screening tool, typically resulting in slight over-predictions in traffic noise levels at typical receptor setback distances.

Traffic volumes for existing conditions were obtained from the traffic data prepared for the Project (Kimley Horn, 2022).

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each Project-area roadway segment. Table 3.9-3 shows the existing traffic noise levels in terms of L_{dn} at closest sensitive receptors along each roadway segment. A complete listing of the FHWA Model input data is contained in Appendix C of Appendix F.

TABLE 3.9-3: EXISTING TRAFFIC NOISE LEVELS AND DISTANCES TO CONTOURS

ROADWAY	*SEGMENT*	*EXTERIOR TRAFFIC NOISE LEVEL, DB L_{DN}*
S Lammers Rd	North of W Schulte Rd	73.3
S Lammers Rd	South of W Schulte Rd	71.7
W Schulte Rd	West of S Lammers Rd	62.3
Hansen Rd	South of W Schulte Rd	56.7

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KIMLEY HORN AND SAXELBY ACOUSTICS, 2023.

3.9.2 REGULATORY SETTING

FEDERAL

There are no federal regulations related to noise that apply to the proposed Project.

STATE

California Environmental Quality Act

The California Environmental Quality Act (CEQA) Guidelines, Appendix G, indicate that a significant noise impact may occur if a project exposes persons to noise or vibration levels in excess of local general plans or noise ordinance standards, or cause a substantial permanent or temporary increase in ambient noise levels. CEQA standards are discussed below under the Thresholds of Significance section.

LOCAL

The Project site is located within an unincorporated area of San Joaquin County and requires annexation into the City of Tracy. The City of Tracy addresses noise in the Noise Element of the General Plan and in the Municipal Code.

City of Tracy General Plan

The Noise Element establishes standards to provide compatible noise environments for new development or redevelopment projects and to control excessive noise exposure of existing developments. Goals, policies, actions, and standards provided in the Noise Element provide the basis for decision-making on determining land use compatibility with noise sources associated with the proposed project, as well as mitigation requirements.

Figure 9-3 of the Noise Element shows a summary of different land uses in the City and their associated acceptable and unacceptable noise levels. These guidelines state that environments with noise levels ranging up to 60 dBA L_{dn} are considered "normally acceptable" for new residential land use development; environments with ambient noise levels greater than 60 dBA and up to 75 dBA L_{dn} are considered "conditionally acceptable" for new residential development and new construction should only be undertaken after a detailed analysis of noise reduction requirements are made and needed noise insulation features are included in the design.

Tracy Municipal Code

Title 4, Chapter 12, Article 9 of the Tracy, California Municipal Code also contains guidance with the intent to control noise and vibration to promote and maintain the health, safety, and welfare of its residents. Section 4.12.720 of the Municipal Code generally prohibits certain activities that have the potential to result in loud, excessive, or unreasonable noise levels. According to the general sound level limits for residential districts, no person shall cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property on which the sound is produced to exceed 55 dBA for any one-hour average period. Specific activities enumerated in the municipal code that could potentially pertain to the proposed Project include minor maintenance to or improvement of real property. This limitation prohibits the generation of construction noise, other than between the hours of 7:00 a.m. and 10:00 p.m. on weekdays or between the hours of 7:00 a.m. and 10:00 p.m. on weekends and federal holidays. The noise ordinance also specifically prohibits the operation of any pneumatic or air hammer, pile driver, steam shovel, derrick, steam or electric hoist, parking lot cleaning equipment, or other appliance, the use of which is attended by loud or unusual noise, between the hours of 10:00 p.m. and 7:00 a.m.

San Joaquin County General Plan

Table PHS-2 of the San Joaquin County 2035 General Plan establishes an acceptable exterior noise level standard of 65 dBA Ldn and an interior noise level standard of 45 dBA Ldn for residential uses exposed to transportation noise sources. For non-transportation noise sources, the General Plan establishes the standards for sensitive uses. See Table 3.9-4.

TABLE 3.9-4: SAN JOAQUIN COUNTY GENERAL PLAN NON-TRANSPORTATION NOISE STANDARDS[1,2]

NOISE LEVEL DESCRIPTOR	*OUTDOOR ACTIVITY AREA[3] DAYTIME[2] (7 A.M. TO 10 P.M.)*	*OUTDOOR ACTIVITY AREAS[3] NIGHTTIME[2] (10 P.M. TO 7 A.M.)*
Hourly equivalent sound level (L_{eq}), dB	50	45
Maximum sound level (L_{max}), dB	70	65

NOTES: THESE STANDARDS APPLY TO NEW OR EXISTING RESIDENTIAL AREAS AFFECTED BY NEW OR EXISTING NON-TRANSPORTATION SOURCES.

[1] WHERE THE LOCATION OF OUTDOOR ACTIVITY AREAS IS UNKNOWN OR IS NOT APPLICABLE, THE NOISE STANDARD SHALL BE APPLIED AT THE PROPERTY LINE OF THE RECEIVING LAND USE. WHEN DETERMINING THE EFFECTIVENESS OF NOISE MITIGATION MEASURES, THE STANDARDS SHALL BE APPLIED ON THE RECEIVING SIDE OF NOISE BARRIERS OR OTHER PROPERTY LINE NOISE MITIGATION MEASURES.

[2] REFER TO MOUNTAIN HOUSE MASTER PLAN, TABLE 11.2, EXTERIOR NOISE STANDARDS FOR NOISE-SENSITIVE USES AFFECTED BY NON- TRANSPORTATION NOISE SOURCES, PAGE 11.12, FOR MOUNTAIN HOUSE NOISE STANDARDS.

[3] EACH OF THE NOISE LEVEL STANDARDS SPECIFIED SHALL BE REDUCED BY 5 DB FOR IMPULSIVE NOISE, SINGLE TONE NOISE, OR NOISE CONSISTING PRIMARILY OF SPEECH OR MUSIC.

SOURCE: SAN JOAQUIN COUNTY GENERAL PLAN.

San Joaquin County Development Regulations

The San Joaquin County Development Regulations, Section 9-1025.9(b) establishes land use noise level standards for new non-transportation or "stationary" noise sources, as outlined below that would be applicable to the proposed Project.

9-1025.9(B) – STATIONARY NOISE SOURCES.

Proposed projects that will create new stationary noise sources shall be required to mitigate the noise levels from these stationary noise sources so as not to exceed the noise level standards specified in Table 9-1025.9(b), Part II (Table 3.9-5).

TABLE 3.9-5: STATIONARY NOISE SOURCES

NOISE LEVEL DESCRIPTOR	*OUTDOOR ACTIVITY AREAS[1] DAYTIME[2] (7 A.M. TO 10 P.M.)*	*OUTDOOR ACTIVITY AREAS[1] NIGHTTIME[2] (10 P.M. TO 7 A.M.)*
Hourly equivalent sound level (L_{eq}), dB	50	45
Maximum sound level (L_{max}), dB	70	65

NOTES: [1]WHERE THE LOCATION OF OUTDOOR ACTIVITY AREAS IS UNKNOWN OR IS NOT APPLICABLE, THE NOISE STANDARD SHALL BE APPLIED AT THE PROPERTY LINE OF THE RECEIVING LAND USE. WHEN DETERMINING THE EFFECTIVENESS OF NOISE MITIGATION MEASURES, THE STANDARDS SHALL BE APPLIED ON THE RECEIVING SIDE OF NOISE BARRIERS OR OTHER PROPERTY LINE NOISE MITIGATION MEASURES.

[2]EACH OF THE NOISE LEVEL STANDARDS SPECIFIED SHALL BE REDUCED BY 5 DB FOR IMPULSIVE NOISE, SINGLE TONE NOISE, OR NOISE CONSISTING PRIMARILY OF SPEECH OR MUSIC. (ORD. 3675; ORD. 4036 § 2(PART), 1999)

SOURCE: SAN JOAQUIN COUNTY DEVELOPMENT REGULATIONS.

VIBRATION STANDARDS

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City of Tracy does not have specific policies pertaining to vibration levels. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 3.9-6 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v). A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 3.9-6: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

P.P.V.		*HUMAN REACTION*	*EFFECT ON BUILDINGS*
MM/SEC.	*IN./SEC.*		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage.

SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBORN VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.

3.9.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the Project will have a significant impact related to noise if it will result in:

- Generation of a temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of excessive groundborne vibration or groundborne noise levels.

Determination of a Significant Increase in Noise Levels

TEMPORARY CONSTRUCTION NOISE IMPACTS

With temporary noise impacts (construction), identification of "substantial increases" depends upon the duration of the impact, the temporal daily nature of the impact, and the absolute change in decibel levels. Per the City of Tracy noise ordinance, construction activities between 10 p.m. and 7 a.m. which create a noise disturbance at the property boundary of a residence are prohibited and would be considered a significant impact.

OPERATIONAL IMPACTS

The noise standards applicable to the Project include the relevant portions of the City of Tracy and County of San Joaquin General Plan and Municipal Code described in the Regulatory Setting section above (Section 3.9.2), and the following standards. Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the Project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project-noise conditions. Table 3.9-7 is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the L_{dn}.

TABLE 3.9-7: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE

AMBIENT NOISE LEVEL WITHOUT PROJECT, L_{DN}	*INCREASE REQUIRED FOR SIGNIFICANT IMPACT*
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

SOURCE: FEDERAL INTERAGENCY COMMITTEE ON NOISE (FICON)

Based on the Table 3.9-7 data, an increase in the traffic noise level of 5 dB or more would be significant where the pre-project noise levels are less than 60 dB L_{dn}, or 3 dB or more where existing noise levels are between 60 to 65 dB L_{dn}. Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 65 dB L_{dn}. The rationale for the Table 3.9-7 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

IMPACTS AND MITIGATION MEASURES

Impact 3.9-1: The proposed Project has the potential to generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less than Significant with Mitigation)

Traffic Noise Environment at Off-Site Receptors With and Without the Project

OFF-SITE TRAFFIC NOISE IMPACT ASSESSMENT METHODOLOGY

Implementation of the proposed Project would result in an increase in daily traffic volumes on the local roadway network, and consequently, an increase in noise levels from traffic sources along affected segments. Tables 3.9-8 and 3.9-9 show the predicted traffic noise level increases on the local roadway network for Existing, Existing Plus Project, Cumulative No Project, and Cumulative Plus Project conditions. Appendix C of Appendix F provides the complete inputs and results of the FHWA traffic noise modeling.

TABLE 3.9-8: EXISTING AND EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	*SEGMENT*	*APPROX. RECEPTOR DISTANCE*	*NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS*				
			EXISTING	*EXISTING + PROJECT*	*CHANGE*	*CRITERIA*	*SIGNIFICANT?*
S Lammers Rd	North of W Schulte Rd	65	73.3	73.3	0.0	+ 1.5 dB	No
S Lammers Rd	South of W Schulte Rd	85	71.7	71.7	0.0	+ 1.5 dB	No
W Schulte Rd	West of S Lammers Rd	220	62.3	62.3	0.0	+ 3.0 dB	No
Hansen Rd	South of W Schulte Rd	115	56.7	56.7	0.0	+ 5.0 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KIMLEY HORN AND SAXELBY ACOUSTICS, 2023.

TABLE 3.9-9: CUMULATIVE AND CUMULATIVE PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	*SEGMENT*	*APPROX. RECEPTOR DISTANCE*	*NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS*				
			CUMULATIVE	*CUMULATIVE + PROJECT*	*CHANGE*	*CRITERIA*	*SIGNIFICANT?*
S Lammers Rd	North of W Schulte Rd	65	78.8	78.8	0.0	+ 1.5 dB	No
S Lammers Rd	South of W Schulte Rd	85	77.8	77.8	0.0	+ 1.5 dB	No
W Schulte Rd	West of S Lammers Rd	220	63.2	63.2	0.0	+ 3.0 dB	No
Hansen Rd	South of W Schulte Rd	115	57.0	57.0	0.0	+ 5.0 dB	No
Valpico Rd	West of S Lammers Rd	75	70.9	70.9	0.0	+ 1.5 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KIMLEY HORN AND SAXELBY ACOUSTICS, 2023.

Project-Generated Non-Transportation Noise Environment at Off-Site Receptors

The primary non-transportation noise sources associated with the proposed Project are on-site parking lot circulation and the proposed loading docks. In order to evaluate these noise sources at the nearest sensitive receptors, Saxelby Acoustics used the SoundPLAN noise prediction model to generate noise level predictions according to the assumptions outlined below.

The SoundPLAN noise prediction model was used to plot noise contours and to calculate noise levels at the sensitive receptors located around the Project site. Inputs to the SoundPLAN model included ground topography and ground type, noise source locations and heights, receiver locations, and sound power level data. These predictions are made in accordance with International Organization for Standardization (ISO) standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors).

It should be noted that sound power is a measure of the total acoustic energy emitted by a noise source and is irrespective of distance from the source. Sound power is input into the SoundPLAN model as a representation of the total acoustic energy emitted by a specific noise source. Sound power levels in this report are A-weighted decibel levels, noted as "dBA, PWL" per industry standards. The model then corrects for the many factors (i.e., distance, terrain shielding, atmospheric absorption, etc.) which affect sound propagation from the noise source to the receiver location.

LOADING DOCK NOISE GENERATION

To determine typical noise levels associated with the proposed loading docks, noise level measurement data from a United Natural Foods, Inc. (UNFI) warehouse was used. The noise level measurements were conducted at a distance of 200 feet from the center of the loading dock and circulation area. Activities during the peak hour of loading dock activities included truck arrival/departures, truck idling, truck backing, air brake release, and operation of truck-mounted refrigeration units.

The results of the loading dock noise measurements indicate that a busy hour generated an average noise level of 61 dBA L_{eq} at a distance of 200 feet from the center of the loading dock truck maneuvering lanes. This analysis assumes that the proposed loading docks would operate at this level of activity in a busy hour during either daytime (7:00 a.m. to 10:00 p.m.) or nighttime (10:00 p.m. to 7:00 a.m.).

PARKING LOT CIRCULATION

Based upon the Project traffic study, the peak hour trips for the Project would be 60 autos and 12 tractor-trailers. Based upon noise measurements conducted of vehicle movements in parking lots, the sound exposure level (SEL) for a single passenger vehicle is 71 dBA at a distance of 50 feet while the SEL of a tractor-trailer is 85 dBA at the same distance.

Saxelby Acoustics used the SoundPLAN noise model to calculate noise levels at the nearest sensitive receptors. Input data included the loading dock and parking lot noise generation, as discussed above. Figure 3.9-2 shows the results of this analysis for the site layout in terms of the peak hour average (L_{eq}). Due to the nature of loading dock operation and parking lot circulation, the maximum noise levels are the same for both daytime and nighttime. Figure 3.9-3 shows the results of this analysis in terms of the peak hour maximum noise levels (L_{max}).

Construction Noise Environment

During the construction of the proposed Project, noise from construction activities would temporarily add to the noise environment in the Project vicinity. As shown in Table 3.9-10, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 3.9-10: CONSTRUCTION EQUIPMENT NOISE

TYPE OF EQUIPMENT	*MAXIMUM LEVEL, DB AT 50 FEET*
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

SOURCE: ROADWAY CONSTRUCTION NOISE MODEL USER'S GUIDE. FEDERAL HIGHWAY ADMINISTRATION. FHWA-HEP-05-054. JANUARY 2006.

Construction Vibration Environment

The primary vibration-generating activities would be grading, utilities placement, and parking lot construction. Table 3.9-11 shows the typical vibration levels produced by construction equipment.

TABLE 3.9-11: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

TYPE OF EQUIPMENT	*P.P.V. AT 25 FEET (IN/SEC)*	*P.P.V. AT 50 FEET (IN/SEC)*	*P.P.V. AT 100 FEET (IN/SEC)*
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

SOURCE: TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT GUIDELINES. FEDERAL TRANSIT ADMINISTRATION. MAY 2006.

INCREASED TRAFFIC NOISE LEVELS AT EXISTING RECEPTORS

The FICON guidelines specify criteria to determine the significance of traffic noise impacts. Where existing traffic noise levels are greater than 65 dBA L_{dn}, at the outdoor activity areas of noise-sensitive uses, a +1.5 dBA L_{dn} increase in roadway noise levels will be considered significant. Where traffic noise levels are between 60 dBA L_{dn} and 65 dBA L_{dn}, a +3.0 dB L_{dn} increase in roadway noise levels will be considered significant. Where traffic noise levels are less than 60 dBA L_{dn}, a +5.0 dB L_{dn} increase in roadway noise levels will be considered significant.

According to Tables 3.9-8 and 3.9-9, the maximum increase in traffic noise at the nearest sensitive receptor is predicted to be 0.0 dBA. Therefore, impacts resulting from increased traffic noise would be considered ***less than significant.***

OPERATIONAL NOISE LEVELS AT EXISTING RECEPTORS

The nearest residential uses in the vicinity of the Project site are located approximately 3,400 feet to the south as measured from the center of the Project site. As shown on Figures 3.9-2 to 3.9-3, the Project noise level contours exceeding the City of Tracy of County of San Joaquin noise level standards do not reach these residential uses. Operational noise levels of the proposed project comply with the applicable standards at these residences. Therefore, impacts resulting from operation of the proposed Project would be considered ***less than significant***.

CONSTRUCTION NOISE

During the construction phases of the Project, noise from construction activities would add to the noise environment in the immediate Project vicinity. Based upon the Table 3.9-10 data, the proposed Project is predicted to generate construction noise levels of up to 90 dBA at a distance of 50 feet. The closest sensitive receptor to the Project site is approximately 1,300 feet from the center of the Project construction area. At this distance, construction noise would attenuate to approximately 62 dBA.

Compliance with the City's permissible hours of construction, as well as implementing the best management noise reduction techniques and practices (both outlined in Mitigation Measure 3.9-1), would ensure that construction noise would not result in a substantial temporary increase in ambient noise levels that would result in annoyance or sleep disturbance of nearby sensitive receptors. Therefore, with implementation of Mitigation Measure 3.9-1, temporary construction noise impacts would be ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.9-1: *To reduce potential construction noise impacts during Project construction, the following multi-part mitigation measure shall be implemented for the Project:*

- *All construction equipment powered by internal combustion engines shall be properly muffled and maintained.*

- *Quiet construction equipment, particularly air compressors, shall be selected whenever possible.*
- *All stationary noise-generating construction equipment such as generators or air compressors shall be located as far as is practical from existing residences. In addition, the Project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction.*
- *Construction shall be limited to 7:00 a.m. to 10:00 p.m.*
- *Staging areas on the Project site shall be located in areas that maximize, to the extent feasible, the distance between staging activity and sensitive receptors.*

These requirements shall be noted on the Project improvement plans.

Impact 3.9-2: The proposed Project would not generate excessive groundborne vibration or groundborne noise levels. (Less than Significant)

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural damage.

The Table 3.9-11 data indicate that construction vibration levels anticipated for the Project are less than the 0.2 in/sec threshold at a distance of 26 feet. Structures which could be impacted by construction-related vibrations are located approximately 130 feet, or further, from the Project site. At these distances, construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours. Therefore, this is a ***less-than-significant*** impact and no mitigation is required.

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Schulte Road Warehouse

San Joaquin County, California

Figure 3.9-1: Noise Measurement Sites

Legend

- Project Site
- Noise Measurement - Long Term

0 ft 100 ft 250 ft 400 ft

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 03/24/2022

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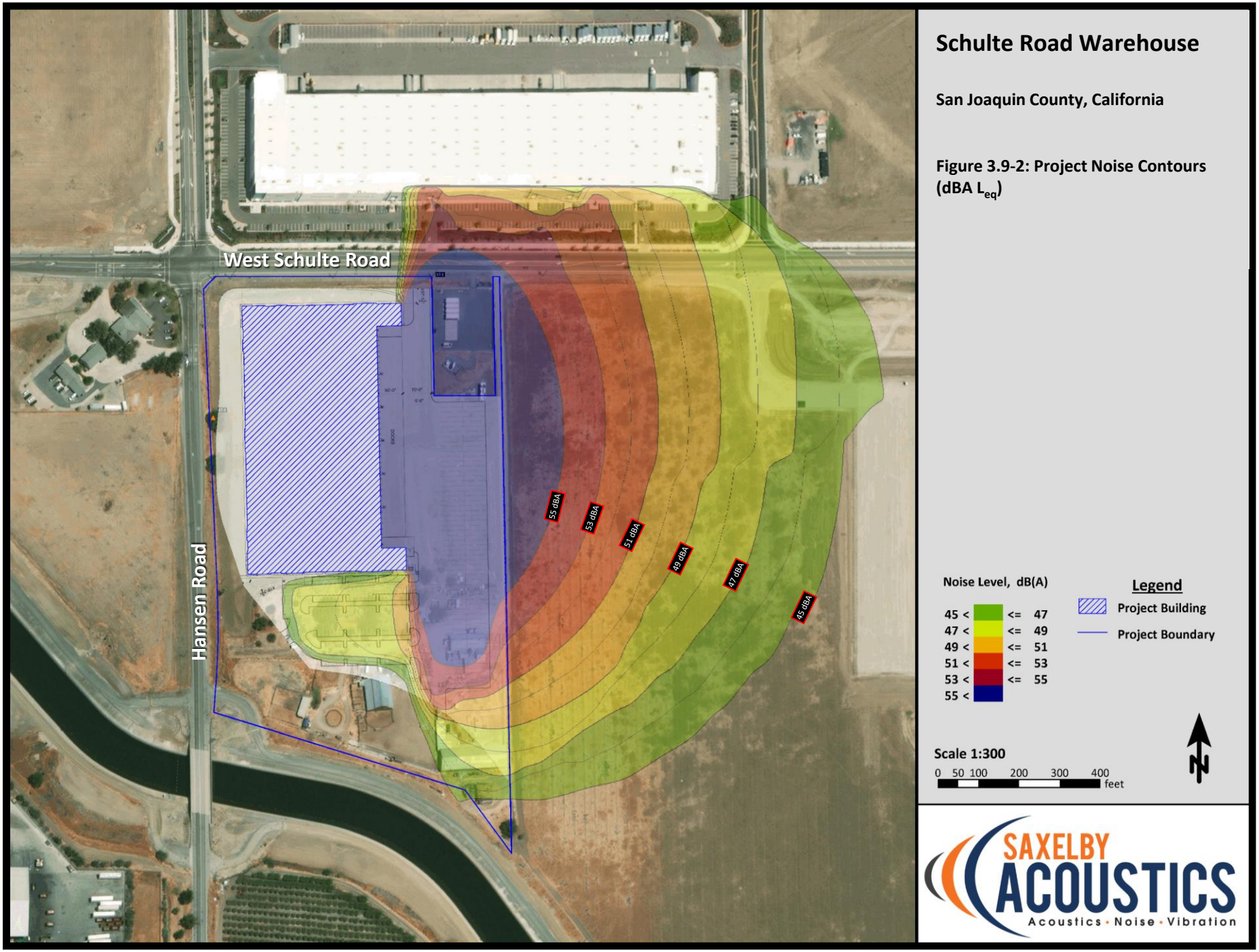

Schulte Road Warehouse

San Joaquin County, California

Figure 3.9-2: Project Noise Contours (dBA L_{eq})

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Schulte Road Warehouse

San Joaquin County, California

Figure 3.9-3: Project Maximum Noise Contours (dBA L_{max})

Noise Level, dB(A)

65 <	<=	67
67 <	<=	69
69 <	<=	71
71 <	<=	73
73 <	<=	75
75 <		

Legend

- Project Building
- Project Boundary

Scale 1:300

0 50 100 200 300 400 feet

N

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This section analyzes the potential impacts of the proposed Project on the transportation system. This section identifies the potential transportation impacts of future buildout of the Project and recommends mitigation measures to lessen their significance. Information in this section is derived primarily from the following (as well as other information described in this section):

- *16286 West Schulte Road Warehouse CEQA Traffic Analysis* (Kimley Horn, 2024);
- *City of Tracy General Plan* (2005);
- *Tracy General Plan Environmental Impact Report* (2011);
- State of California, Governor's Office of Planning and Research (OPR), *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR, December 2018); and
- *Trip Generation Manual, 11th Edition* (ITE, 2021).

The following comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic: State of California Department of Justice (December 20, 2023), California Highway Patrol (January 9, 2024), and San Joaquin Valley Air Pollution Control District (January 16, 2024). Full comments received are included in Appendix A.

Senate Bill (SB) 743, whose requirements became effective statewide on July 1, 2020, specified that "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

In December 2018, the California Office of Planning and Research (OPR) published final technical guidance for implementing SB 743. On December 28, 2018, the Resources Agency adopted CEQA Guidelines Section 15064.3. Under that guideline, VMT was chosen as the primary metric used to identify transportation impacts under CEQA. Hence, this chapter includes an extensive review of the Project's VMT. This section also addresses many other important transportation-related areas of concern, including pedestrian/bicycle facilities, transit facilities and services, emergency vehicle response, hazardous conditions, and temporary construction-related conditions.

3.10.1 ENVIRONMENTAL SETTING

PROJECT LOCATION

The Schulte Road Warehouse Project site (Project site) is located at 16286 West Schulte Road in unincorporated San Joaquin County, California (see Figures 2.0-1 and 2.0-2 in Chapter 2.0, Project Description). The Project site is within the Tracy Sphere of Influence (SOI) 10-Year Planning Horizon and is immediately adjacent to the Tracy city limits to the north of the site.

The Project site is bound by Hansen Road to the west, West Schulte Road to the north, the Delta Mendota Canal to the south, and a private driveway and vacant land on the east. Surrounding land uses include the Cal Fire Station 26 and vacant land to the west, vacant land previously used for agricultural uses to the east, two industrial warehouses to the north, and the Delta Mendota Canal and agricultural land to the south. The area north of the Project site is part of the Cordes Ranch Specific Plan.

ROADWAY SYSTEM

Regional access to the site is provided via Interstate 205 (I-205) and Interstate 580 (I-580) via the Mountain House Parkway/International Parkway and the International Parkway/Patterson Pass Road interchanges, respectively. Access to and from the I-205 Mountain House Parkway/International Parkway interchange is provided via International Parkway and West Schulte Road. Access to and from the I-580 International Parkway/Patterson Pass Road interchange is provided via International Parkway to West Schulte Road.

PEDESTRIAN AND BICYCLE FACILITIES

This section describes the existing pedestrian and bicycle facilities in the vicinity of the Project site.

Pedestrian Facilities

Due to the rural and partially undeveloped conditions of the study area, limited pedestrian facilities are currently provided. Sidewalks are located on the north side of West Schulte Road near the northern boundary of the site. Sidewalks are not currently located on the south side of West Schulte Road near the northern boundary of the site. Along Hansen Road, sidewalks can be found north of West Schulte Road along both sides of the roadway. Hansen Road south of West Schulte Road and north of the Delta Mendota Canal (along the western boundary of the site) does not have sidewalks.

Bicycle Facilities

Bicycle facilities in Tracy include the following general types:

- **Class I: Shared Use Path** - Referred to as shared-use paths or trails, these are off-street facilities that provide exclusive use for non-motorized travel, including bicyclists and pedestrians. Bike paths have minimal cross flow with motorists and are typically located along landscaped corridors.
- **Class II: Bicycle Lane** - Bicycle lanes provide a restricted right-of-way and are designated for the use of bicycles for one-way travel with a striped lane on a street or highway. Bicycle lanes are generally a minimum of five feet wide. Vehicle parking and vehicle/pedestrian cross-flow are permitted.
- **Class III: Bicycle Route** - These facilities are found along streets that do not provide sufficient width for dedicated bicycle lanes. The street is designated as a bicycle route through the use of signage and optional pavement markings where bicyclists travel on the shoulder or share a lane with motor vehicles. Class III bike routes are utilized on low-speed and low-volume streets to connect bike lanes or paths along corridors that do not provide enough space for dedicated lanes.
- **Class IV: Separated Bikeway** - Commonly known as cycle tracks, these are physically separated bicycle facilities that are distinct from the sidewalk and designed for exclusive use by bicyclists. They are located within the street right-of-way, but provide comfort similar to Class I bike paths.

Bicycle facilities in the study area are similar to the pedestrian facilities in the study area. Street frontages that contain recent development have complete sidewalks and bicycle lanes, while areas undeveloped generally lack pedestrian facilities and dedicated bicycle facilities. Bicycle lanes are located along West Schulte Road. West of the Delta Mendota Canal where existing industrial development can be found, bicycle lanes are located on both sides of West Schulte Road. Along Hansen Road located west of the site, bicycle lanes can be found north of West Schulte Road along both sides of the roadway. Hansen Road south of West Schulte Road has bicycle routes.

TRANSIT SERVICE

The City of Tracy operates fixed-route bus and paratransit services with the TRACER bus system. Additionally, San Joaquin Regional Transit District (SJRTD) operates several routes that pick-up passengers in Tracy. Further, Altamont Commuter Express (ACE) operates commuter trains from San Jose to Stockton, stopping in Lathrop/Manteca, Tracy, Livermore, Pleasanton, Fremont, and Santa Clara before reaching San Jose. The services are described below. The fixed routes all operate in central Tracy, and do not extend into the study area.

TRACER Bus Services

As the study area is primarily agricultural in character in its present form, no service currently exists to the site. The closest TRACER fixed route to the study area is Route D. The nearest Route D stop to the Project site is located near Kimball High, approximately two miles northeast of the Project site. All routes operate Monday through Friday from 7:00 a.m. to 7:00 p.m., and Saturday from 9:00 a.m. to 5:00 p.m. TRACER does not offer service on Sundays.

The one-way cash fare for the TRACER fixed route service is $1.25 for adults, discounted to $1.00 for students and $0.50 for seniors and the disabled. Additionally, day passes offering unlimited trips in a single day are available for $3.00 for adults ($2.50 for students, $1.25 for seniors and the disabled) as are 10-ride tickets and weekly passes for $12.50 ($10.00 for students, $5.00 for seniors and the disabled).

The commuter routes run both clockwise and counterclockwise throughout the City of Tracy, serving a variety of residential neighborhoods as well as the Tracy Transit Station and the Downtown Civic Center. To the east of the study area, the Commuter route travels along Schulte Road, heading northwest through the residential areas south of 11th Street. The route then travels along 11th Street, north along Lammers Road, and makes a loop in the residential neighborhood to the east of Lammers. The closest TRACER commuter route to the study area is Route G. The nearest Route G stop to the Project site is located near Kimball High, approximately 2.2 miles northeast of the Project site.

The TRACER Paratransit service area incorporates most of the City of Tracy and is generally bounded by Lammers Road to the west, Larch Road and Arbor Avenue to the north, and Chrisman Road to the east. Service is available during the fixed route TRACER service. One-way rides are $1.50 for seniors, disabled individuals, and those on Medicare, and the cash fare increases to $1.75 for the general public living in unincorporated areas and guests and companions of paratransit users. The

Paratransit Subsidized Taxi Service is available to TRACER Paratransit users during non-operating hours.

San Joaquin Regional Transit District (SJRTD)

SJRTD provides intercity fixed route service between Tracy and Stockton. As of January 1, 2012, a one-way fare on an RTD costs $1.50 ($0.75 discounted for seniors or Medicate card-holders). One-day passes are available for $4.00 ($2.00 discounted), and 31-day passes are available for $65.00 ($40.00 for students, $30.00 discounted). Additionally, the RTD-BART Commuter service costs $7.00 each way with monthly fares ranging from $132.00 to $144.00 depending on destination and origin. SJRTD operates the following routes in Tracy:

- **Route 90** — runs from Stockton's Downtown Transit Center along 1-5 to Tracy, where it runs east-west along Grant Line Road, ending at the Wal-Mart just west of I-205. Route 90 operates on weekdays from 9:20 AM to 4:12 PM and weekends from10:27 AM to 5:11 PM. The nearest stop is located downtown at the Tracy Transit Station, approximately 4.7 miles east of the Project site.
- **Route 150 (RTD-BART Commuter)** — runs from Stockton's Downtown Transit Center to the Dublin BART. The route operates from 4:00 AM to 7:20 PM on weekdays. The nearest stop is located at the Tracy Transit Station, approximately 4.7 miles east of the Project site.

Altamont Commuter Express

The ACE in Tracy is located on the northeast corner of the intersection of West Linne Road and Tracy Boulevard, approximately 4.5 miles southeast of the Project site. In service Monday through Friday, ACE offers three trains in the AM peak period operating from 4:20 a.m. to 8:50 a.m. and three trains during the PM peak period, operating from 3:35 pm. to 7:45 p.m. ACE does not run on the weekends.

Monthly, weekly, 20-trip, and one-way passes are available and vary in price based on distance traveled. Adult fares range from $6.25 for a one-way trip ($161.25 monthly pass) from Tracy to Tri-Valley to $11.75 for a one-way trip ($299.75 monthly pass) from Tracy to San Jose.

3.10.2 REGULATORY SETTING

Existing transportation polices, laws, and regulations that would apply to the Project are summarized below. This information provides a context for the impact discussion related to the Project's consistency with applicable regulatory conditions and development of significance criteria for evaluating Project impacts.

STATE

Senate Bill 743

SB 743 added section 21099 to the Public Resources Code, which states that automobile delay, as described by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment. The law directed OPR to amend the CEQA

Guidelines to establish new metrics for determining the significance of transportation impacts of projects. The California Natural Resources Agency certified and adopted the amended CEQA Guidelines in December 2018. In the amended CEQA Guidelines, OPR selected VMT as the preferred transportation impact metric and applied its discretion to recommend use of VMT statewide, beginning in July 2020. The amended CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts."

California Department of Transportation

Caltrans is responsible for planning, designing, constructing, operating, and maintaining the State Highway System (SHS). Federal highway standards are implemented in California by Caltrans. Any improvements or modifications to the SHS within the study area would need to be approved by Caltrans.

LOCAL

City of Tracy Citywide Roadway & Transportation Master Plan

The City's Citywide Roadway & Transportation Master Plan (TMP) document serves as an update to the 2012 City TMP. The TMP builds upon the goals and objectives as defined in the Circulation Element of the City's General Plan (February 2011) and the Sustainable Action Plan (SAP) (February 2011). The SAP included feasible measures to achieve sustainability in multiple sectors and reduce GHG emissions. These measures include policies to increase transit usage and opportunities, improve traffic flow in the city, support the development of new bicycle and pedestrian facilities, and other land use policies. The General Plan is based upon a future Horizon Year of 2025 conditions. The TMP looks to a Horizon Year of 2042, to provide the maximum possible infrastructure planning and to be consistent with the planned San Joaquin Council of Governments (SJCOG) Travel Demand Model update to Year 2042. The TMP provides a complete review of the City's transportation system and serves as a comprehensive planning document that can be utilized to identify and implement required improvements to the existing roadway system. In addition, the TMP can serve as the baseline for incorporating expansion or accommodating future development consistent with the General Plan.

According to the TMP, if a significant transportation impact is identified, feasible mitigation measures to avoid or reduce the impact must be identified and CEQA requires that such mitigation measures be included in the project's environmental assessment. OPR provides a list of potential measures to reduce VMT but gives the lead agency (the City of Tracy in this case) discretion in the selection of mitigation measures.

The TMP also outlines the VMT Mitigation Banking Fee Program. The City of Tracy's policy is that new development shall contribute to the VMT Banking Fee if needed for mitigation of their VMT impacts. In addition, the cost of constructing the improvements to help mitigate VMT citywide will be implemented through the VMT banking fee program administered by the City of Tracy. The fee advances a legitimate public interest by enabling the City to fund improvements to transportation infrastructure required to accommodate a new development's VMT impacts. The projects that are

included in the City of Tracy's VMT Mitigation Banking Fee Program will fund the construction of facilities that support active transportation (cycling and walking) to mitigate VMT impacts from new development. These facilities include both bike trails and bike lanes.

The type and size of the project will determine the most appropriate mitigation strategies for VMT impacts. For large projects such as general plans or specific plans, VMT mitigations should concentrate on the project's density and land use mix, site design, regional policies, and availability of transit, bicycle, and pedestrian facilities. For smaller projects such as an individual development project, VMT mitigations will typically require the preparation of a transportation demand management (TDM) program. A TDM program is a combination of strategies to reduce VMT. The program is typically created by an applicant for its land use project based on a list of strategies approved by the lead agency.

It is noted that the City released the Final Draft Transportation Master Plan Update in August 2022. The document will be adopted by the City in late 2024/early 2025.

City of Tracy General Plan

The City of Tracy General Plan includes several policies that are relevant to transportation and circulation. General Plan policies applicable to the Project are identified below:

POLICIES: CIRCULATION

- CIR-1.1-P1. The City should develop context-based street designs that allow for variations based on the expected function and location of the facility, and the surrounding land use context. These context-sensitive designs should have the following aims:
    - Create aesthetically attractive streetscapes.
    - Enhance multi-modal transportation by increasing mobility and improving safety for autos, trucks, transit, pedestrians, and bicyclists.
- CIR-1.1-P2. The City shall preserve rights-of way needed for future roadway and freeway interchange improvements through dedication or acquisition as adjacent properties develop or redevelop.
- CIR-1.1-P3. The City shall continue to apply traffic mitigation fee programs to fund transportation infrastructure, based on a fair share of facility use.
- CIR-1.1-P4. The City should continue to pursue regional, county, and State funding to fund roadway projects. These potential funding sources may include Measure K sales tax revenues, a regional or countywide transportation impact fee, and other existing and future revenue sources.
- CIR-1.1-P5. The City shall continue to participate in regional transportation funding decisions, including Measure K reauthorization, regional or countywide transportation fees, and prioritization of State funded projects.
- CIR-1.1-P6. The Roadway Master Plan update shall identify necessary improvements to various intersections on I-205 and I-580 based on land use designations and with particular attention to Terminal Access Routes in accordance with Surface Transportation Assistance Act of 1982 (STAA).

- CIR-1.2-P1. The City shall ensure that the street system results in a high level of connectivity, especially between residences and common local destinations, such as schools, Village Centers, retail areas, and parks. The standard for roadway (vehicular) connectivity is defined as appropriate spacing of arterials and collectors and local roads as detailed in Section of [the Circulation] Element "Roadway Classifications and Standards".
- CIR-1.2-P2. The City shall implement a connected street pattern with multiple route options of vehicles, bikes, and pedestrians.
- CIR-1.2-P3. New development shall be designed to provide vehicular, bicycle and pedestrian connections with adjacent developments.
- CIR-1.2-P5. New development shall be designed with a grid or modified grid pattern to facilitate traffic flows and to provide multiple connections to arterial streets.
- CIR-1.3-P7. Traffic studies for new developments within the City may be prepared if necessary and appropriate to determine the impacts of the project's traffic on the transportation system.
- CIR-1.3-P8. Access control and minimization of median openings shall be a key consideration in the design of expressways, boulevards, arterials, and major collectors.
- CIR-1.3-P9. The City shall encourage the use of right-turn-in/right-turn-out only turning movements where local and collector streets intersect arterial streets with medians. The purpose is to increase the safety of the roadway and to avoid traffic signals that are spaced too close together.
- CIR-1.6-P2. New development shall implement traffic calming measures where necessary so long as connectivity is not diminished.
- CIR-3.1-P6. New development shall include pedestrian and bicycle facilities internal to the development and that connect to city-wide facilities, such as parks, school, and recreational corridors, as well as adjacent development and other services.
- CIR-3.1-P7. New development sites for commercial, employment, educational, recreational, and park-and-ride land uses shall provide bicycle parking and/or storage facilities.
- CIR-4.1-P5. The City shall require development to provide for transit and transit-related increased modal opportunities, such as adequate street widths and curb radii, bus turnouts, bus shelters, park-and-ride lots and multi-modal transit center through the development and environmental review processes, if appropriate.

3.10.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on transportation and circulation if it would:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); and/or

- Result in inadequate emergency access.

VMT Significance Criteria

The proposed Project's VMT-related impacts were evaluated using the Draft City of Tracy VMT Policy and Calculator/Tool. The City plans to adopt the VMT Policy in late 2024/early 2025. For the surrounding industrial land use area, the City's Draft threshold is 9.4 VMT per employee. This threshold is based on existing VMT for countywide employment, reduced by 15% per SB 743 guidelines and the CEQA guidelines. The City of Tracy has developed this Tool for use in SB 743 land use project analysis. The purpose of the tool is to calculate VMT for a land use project and determine whether there is a significant transportation impact based on VMT and the effect of various mitigation options. Broadly, the VMT Analysis Tool provides the following information:

- VMT Threshold Analysis
- Greenhouse Gas (GHG) Estimation
- TDM Evaluation

Other Impacts

Evaluation of potential transportation impacts related to conflict with existing and planned policies, transportation hazards, and emergency access are based on a review of Project changes to the transportation network and a qualitative assessment of whether those changes would conflict with applicable standards or result in detrimental conditions based on the thresholds of significance.

To date, VMT mitigation has relied heavily on TDMs. These measures generally represent two basic approaches: infrastructure and policy. The California Air Pollution Control Officers Association (CAPCOA) guide for Quantifying Greenhouse Gas Mitigation Measures (2010), is one of the primary industry resources for estimating the effects of TDM strategies as mitigation in California. Although this resource is invaluable, the data on which it is based is relatively old, limited in terms of sample size, and based on experiences in highly urbanized areas. As such, many of the mitigation options provided have questionable efficacy in suburban and rural contexts. TDMs are also challenging from the standpoint of mitigation monitoring and are often unpopular with project applicants because they may need to be managed and paid for in perpetuity. These limitations have led jurisdictions, including the City of Tracy, to increasingly consider programmatic approaches to VMT mitigation. Programmatic approaches that rely on collectively funding larger multimodal projects allow a project to obtain an amount of mitigation commensurate with their impact, include only a single payment without the complexity of ongoing management, and do not require on-going mitigation monitoring. Programmatic approaches can also provide a public benefit in terms of funding transportation improvements that would not otherwise be constructed, resulting in reduced congestion and GHG emissions, increased transportation choices, and additional opportunities for active transportation.

The City of Tracy is developing a programmatic approach to funding VMT mitigation, i.e., a VMT Mitigation Banking program. The VMT Mitigation Banking Fee forms part of the City of Tracy SB 743 Policy, which has not been adopted at the time of compilation of this document. The program's

approach to mitigation of VMT impacts is, however, consistent with SB 743 requirements and CEQA guidelines. Under a VMT Mitigation Banking framework, multiple VMT reducing projects are grouped together and their associated VMT reductions are monetized in the form of credits. These credits are then purchased for the purposes of mitigating VMT in excess of determined impact thresholds. The underlying projects may be either regionally or locally beneficial to the area in which the project is located. The City will be considering adoption of the VMT Policy, including the VMT Mitigation Banking Fee, in late 2024/early 2025.

ANALYSIS METHODS

This section provides an overview of the proposed Project components and addresses the proposed Project trip generation.

Project Description

The Project would include demolition of the three single-family residences and six ancillary structures and redevelopment of the Development Area with a one-story, 217,466 square foot (sf) warehouse building and a surface parking lot. The 217,466-sf warehouse would include 206,593 sf of warehouse uses and 10,873-sf of office space. The City's General Plan land use designation for the Project site is Industrial. Specific uses allowed in the industrial category range from flex/office space to manufacturing to warehousing and distribution. Although the tenants of the proposed warehouse are unknown at this time, this analysis assumes that business operations could occur 24 hours per day. Tenants which use cold storage will not be allowed on-site. The proposed warehouse would include 31 dock level doors on the eastern side of the building.

ACCESS AND CIRCULATION

Site access would be provided by two new driveways: one from the southwest, off of Hansen Road; and one from the north, off of West Schulte Road. The Project would also involve improvements to Hansen Road adjacent to the Project site, including roadway resurfacing improvements and construction of a roundabout at the southwestern site access point.

The proposed parking area would include approximately 206 vehicle parking stalls and 116 trailer parking stalls. The vehicle parking area would be located in the southern portion of the site and the trailer parking area would be located in the eastern portion of the site.

Trip Generation

Trip generation for the proposed Project was calculated using the City of Tracy Industrial (Other) rates from the City of Tracy TMP with supplemental data provided by the Institute of Traffic Engineers (ITE) "Trip Generation Manual," 11th Edition, as provided by the *16286 West Schulte Road Warehouse CEQA Traffic Analysis* (Kimley Horn, 2022). The Warehousing Land Use Code (LUC) 150 best represents the Project's proposed land use and was utilized to determine daily trip generation, AM/PM peak hour distribution, and truck/passenger car splits.

The proposed Project trip generation estimates are shown in Table 3.10-1. As shown in the table, the proposed Project is anticipated to generate a total of 382 weekday daily trips, including 37 weekday AM peak hour trips (28 IN / 9 OUT), and 72 weekday PM peak hour trips (20 IN / 52 OUT).

TABLE 3.10-1: PROJECT TRIP GENERATION ESTIMATES

LAND USE	SIZE	DAILY	AM PEAK HOUR			PM PEAK HOUR		
			TOTAL	IN	OUT	TOTAL	IN	OUT
TRIP GENERATION RATE PER 1,000 SQUARE FEET								
City of Tracy (Other) Warehouse[1]	KSF	-	0.17	77%	23%	0.33	28%	27%
TRIP GENERATION ESTIMATES								
Warehouse Building	**217.466**	**382**	**37**	**28**	**9**	**72**	**20**	**52**
Passenger Cars[2]		*248*	*33*	*25*	*8*	*60*	*17*	*43*
Trucks[2]		*134*	*4*	*3*	*1*	*12*	*3*	*9*

NOTES:

1. CITY OF TRACY TMP RATES ARE USED FOR AM AND PM PEAK HOUR RATES. INSTITUTE OF TRANSPORTATION ENGINEERS (ITE), "TRIP GENERATION MANUAL," 11TH EDITION, LU 150 – WAREHOUSE IS USED FOR DAILY TRIP RATE AND AM/PM PEAK HOUR DISTRIBUTION PERCENTAGES.

2. DAILY TRIPS UTILIZE THE FOLLOWING ITE EQUATION FOR LU 150: T = 1.58(X) + 38.29

3. PASSENGER CAR AND TRUCK PERCENTAGES ARE ESTIMATED BASED ON THE ITE "TRIP GENERATION MANUAL," 11TH EDITION FOR LU 150.

SOURCE: KIMLEY HORN, 2024.

METHODOLOGY

This section describes the analysis methods used to determine impacts associated with transportation and circulation as defined by CEQA that would result from implementation of the Project.

VMT CEQA Guidelines

As discussed previously, VMT is now the primary metric for analyzing traffic impacts. This analysis relies on guidance provided in the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018) to assess the Project's VMT impact. Specifically, this analysis considers the following:

- Does the Project meet one or more of the "screening thresholds" identified in the Technical Advisory, such that a detailed analysis is not necessary?
- If so, what information or data is available to support the conclusion that the Project meets the screening threshold and should be considered to have a less-than-significant transportation impact?

Per OPR guidance, if the Project does not meet one or more of the "screening thresholds," this analysis would proceed to a detailed analysis of the Project's VMT impact. This includes quantifying the Project's VMT generation and determining whether this VMT generation would meet the City recommended thresholds of significance.

As noted previously, the proposed Project's VMT-related impacts were evaluated using the City of Tracy VMT Calculator. For the surrounding industrial land use area, the City's threshold is 9.4 VMT per employee. As noted previously, the City plans to adopt the VMT Policy, including the VMT Calculator, in late 2024/early 2025.

IMPACTS AND MITIGATION MEASURES

Impact 3.10-1: Project implementation may conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) (Significant and Unavoidable)

The following VMT analysis is based on the CEQA Transportation Analysis prepared by Kimley Horn (See Appendix G for further detail).

Per the City's Draft VMT Policy, Kimley Horn conducted a VMT analysis for the proposed Project for automobile (employee) trips only. The purpose of the VMT analysis was to measure the transportation impact of the new development and provide recommended mitigation measures.

The proposed warehouse building was evaluated using the City of Tracy Draft VMT Policy Calculator. For the surrounding industrial land use area, the City's draft threshold is 9.4 VMT per employee. The proposed Project is estimated to generate 25 VMT per employee. The *Technical Advisory on Evaluating Transportation Impacts in CEQA* published by the California Governor's Office of Planning and Research (OPR) in December 2018 provides the following methodology guidance for the exclusion of heavy trucks from VMT calculations:

> Proposed Section 15064.3, subdivision (a), states, "For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project." Here, the term "automobile" refers to on-road passenger vehicles, specifically cars and light trucks.

Therefore, the VMT analysis excludes truck trips. As a result, the proposed Project would exceed the threshold by 166% (Kimley Horn, 2022).

Per the City's Draft VMT Policy threshold, which is consistent with SB 743 guidelines, the proposed Project's potential increase in VMT would result in a significant transportation impact. For projects that would cause a VMT impact, VMT reduction strategies such as introducing TDM measures, or additional multimodal infrastructure can, according to research literature and case studies, be used to potentially mitigate the VMT impact.

In addition to the opportunity to mitigate, to the extent feasible, the proposed Project's VMT impacts via implementation of a TDM program, the City also has a Draft VMT Banking Fee Program that, once adopted, would provide an alternative method to mitigate, to the extent feasible, proposed Project VMT impacts. The VMT Mitigation Banking Fee Program is a programmatic approach to respond to the need for feasible VMT mitigation programs. Programmatic approaches

that rely on collectively funding larger projects allow a project to provide an amount of mitigation commensurate with its respective impact, include only a single payment without the complexity of ongoing management issues that often occur in connection with TDM programs, and do not require ongoing mitigation monitoring. Programmatic approaches can also provide a public benefit in terms of funding transportation improvements that would not otherwise be constructed, resulting in improvements to congestion, a reduction in greenhouse gas (GHG) emissions, increased transportation choices, and additional opportunities for active transportation.

The California Air Pollution Control Officers Association (CAPCOA) states that for suburban communities, such as Tracy, a feasible reduction of 15 percent could be achieved. The City, in its discretion, has elected to utilize this 15 percent threshold as the feasible amount by which the proposed Project would need to mitigate. In other words, each relevant applicant would need to reduce its VMT that would otherwise occur in connection with implementation of the relevant individual development proposal by 15 percent (as compared to what would occur without mitigation).

The City's Draft VMT Mitigation Banking Fee Program calculates the cost per one VMT reduction as $633.11. However, the VMT Mitigation Banking Fee Program has not yet been finalized and adopted by the City; accordingly, the applicable fee would be the amount provided for under the Mitigation Banking Fee Program adopted by the City Council and effective at the time the applicant obtains building permits. Since it is unknown if the Mitigation Banking Fee Program will be adopted at the time the proposed Project applies for building permits, two VMT mitigation options are outlined below.

Option 1: The first option includes a combination of TDM measures plus a VMT Mitigation Banking Fee for the proposed Project to achieve 15% VMT reductions.

The Project applicant has agreed to implement TDM measures estimated to be equivalent to an 8% reduction in VMT for the Project. See Table 3.10-3 for the proposed list of TDM measure under this option. Table 3.10-3 lists the potential TDM measures that could partially mitigate the proposed Project's VMT impact and, also, shows the estimated maximum TDM reduction that each strategy could achieve. Therefore, under this option, the Project shall mitigate the remaining 7% of VMT reductions via a VMT Banking Fee payment. The 7% VMT reduction required equates to 1.75 VMT per employee that needs to be mitigated. Per the City of Tracy TMP, it is estimated that industrial land uses have an employee-to-area ratio of 1 employee/1,000 square feet. Therefore, for sake of the VMT Banking Fee calculation, the Project is assumed to have 217 employees. The payment calculation is shown below with additional detail shown in Table 3.10-2. The total payment is $240,423.52.

*VMT Banking Fee = 217 employees * 1.75 VMT/employee * $633.11/VMT = $240,423.52*

This payment is shown with additional detail in Table 3.10-2.

TABLE 3.10-2: VMT BANKING FEE

CITY VMT POLICY	
Industrial VMT/Employee Threshold	9.40
Maximum VMT Reduction	15%
VMT Mitigation Banking Fee	$633.11
PROPOSED PROJECT DESCRIPTION	
Project Building Area (ksf[1])	217.4
Employees Per ksf	1
Project Employees	217
PROPOSED PROJECT VMT SCREENCHECK	
Project VMT Per Employee[2]	25
Project Total Employee VMT	5,425.0
VMT Per Employee Compared to City Threshold	166%
VMT REDUCTIONS	
Via TDM	*2%*
Via Banking Fee	*13%*
Total	*15%*
VMT MITIGATION BANKING FEE	
Project Total Employee VMT Reduction for Fee Calculation	705.3
Project Total Employee VMT Per Employee Reduction for Fee Calculation	3.25
Proposed Project Banking Fee[3]	**$446,500.83**

NOTES:[1] KSF = THOUSAND SQUARE FEET.

[2] BASED ON THE CITY OF TRACY'S MAP-BASED VMT SCREENING FOR EMPLOYMENT

*[3] PROPOSED PROJECT MITIGATION BANKING FEE = CITY VMT MITIGATION BANKING FEE * PROJECT TOTAL EMPLOYEE VMT REDUCTION*

SOURCE: KIMLEY HORN, 2024.

TABLE 3.10-3: TDM MEASURES

TDM MEASURES	*DESCRIPTION*	*MAX. VMT REDUCTION*	*OPTION 1 APPLIED MEASURE[2]*	*OPTION 2 APPLIED MEASURE[3]*	*VMT REDUCTION APPLIED*
PARKING STRATEGIES					
Reduce Parking Supply	**Reduce the number of available parking spots provided to employees.**	**1%**	**X**	**X**	**1%**
Unbundle Parking	Remove free parking at the site, and charge employees for parking. The higher the cost of parking, the higher the reduction.	1%			0%
Parking Cash-out	**Provide employees a choice of forgoing current parking for a cash payment to be determined by the employer. The higher the cash payment and eligible employees, the higher the reduction.**	**2%**		**X**	**2%**
TRANSIT STRATEGIES					
Transit Stops	Coordinate with local transit agency to provide bus stop near the site. Real time transportation information displays support on-the-go decision making to support sustainable trip making.	1%			0%

TDM Measures	*Description*	*Max. VMT Reduction*	*Option 1 Applied Measure*[2]	*Option 2 Applied Measure*[3]	*VMT Reduction Applied*
Implement Neighborhood Shuttle	Implement project-operated or project-sponsored neighborhood shuttle serving residents, employees, and visitors of the project site.	2%			0%
Transit Subsidies	Involves the subsidization of transit fare for residents and employees of the project site. This strategy assumes transit service is already present in the project area.	2%			0%
	Pays for employees to use local transit. This could either be a discounted ticket or a full-reimbursed transit ticket.				0%
Communication & Information Strategies					
Travel Behavior Change Program	**Involves the development of a travel behavior change program that targets individuals' attitudes, goals, and travel behaviors, educating participants on the impacts of their travel choices and the opportunities to alter their habits. Provide a website that allows employees to research other modes of transportation for commuting. Employee-focused travel behavior change programs target individuals' attitudes, goals, and travel behaviors, educating participants on the impacts of their travel choices and the opportunities to alter their habits.**	**1%**	**X**	**X**	**1%**
Promotions & Marketing	**Involves the use of marketing and promotional tools to educate and inform travelers about site-specific transportation options and the effects of their travel choices with passive educational and promotional materials. Marketing and public information campaign to promote awareness of TDM program with an on-site coordinator to monitor program.**[1]	**1%**	**X**	**X**	**1%**
Commuting Strategies					
Employer Sponsored Vanpool or Shuttle	**Implementation of employer-sponsored employee vanpool or shuttle providing new opportunities for access to connect employees to the project site.**	**2%**		**X**	**2%**
Emergency Ride Home (ERH) Program	**Provides an occasional subsidized ride to commuters who use alternative modes. Guaranteed ride home for people if they need to go home in the middle of the day due to an emergency or stay late and need a ride at a time when transit service is not available.**	**1%**	**X**	**X**	**1%**
Tele-commuting Alternative work schedule	Four-Ten work schedule results in 20% weekly VMT reduction, 10% trip reduction equals 15% VMT reduction.	7%			0%
On-site Childcare	Provides on-site childcare to remove the need to drive a child to daycare at a separate location.	1%			0%
Shared Mobility Strategies					
Ride Share Program	**Increases vehicle occupancy by providing ride-share matching services, designating preferred parking for ride-share participants, designing adequate passenger loading/unloading and waiting areas for ride-share vehicles, and providing a website or**	**2%**		**X**	**2%**

TDM Measures	*Description*	*Max. VMT Reduction*	*Option 1 Applied Measure[2]*	*Option 2 Applied Measure[3]*	*VMT Reduction Applied*
	message board to connect riders and coordinate rides. Need a point person form the business on-site.				
Employee/ Employer Car Share	Implement car sharing to allow people to have on-demand access to a vehicle, as-needed. This may include providing membership to an existing program located within 1/4 mile, contracting with a third-party vendor to extend membership-based service to an area, or implementing a project-specific fleet that supports the residents and employees on -site.	**1%**			0%
	Provide an on-site car vehicle for employees to use for short trips. This allows for employees to run errands or travel for lunch.			**X**	**1%**
Designated Parking Spaces for Car Share Vehicles	**Reserved car share spaces closer to the building entrance.**	**1%**	**X**	**X**	**1%**
Bicycle Infrastructure Strategies					
Bike Share Program	Participate in a bike share program/On site bike share program.	1%			0%
Implement/ Improve On-street Bicycle Facility	**Implements or provides funding for improvements to corridors and crossings for bike networks identified within a one-half mile buffer area of the project boundary, to support safe and comfortable bicycle travel.**	**1%**		**X**	**1%**
Include Bike Parking Per City Code	**Implements short and long-term bicycle parking to support safe and comfortable bicycle travel by providing parking facilities at destinations.**	**1%**		**X**	**1%**
Include Secure Bike Parking and Showers	**Implements additional end-of-trip bicycle facilities to support safe and comfortable bicycle travel.**	**1%**	**X**	**X**	**1%**
Bicycle Repair Station/ Services	**On-site bicycle repair tools and space to use them supports on-going use of bicycles for transportation.**	**1%**		**X**	**1%**
Neighborhood Enhancement Strategies					
Traffic Calming Improvements	Implement traffic calming improvements on streets and intersections throughout and around the project site.	1%			0%
Pedestrian Network Improvements	**Implement pedestrian network improvements throughout and around the project site that encourages people to walk.**	**2%**	**X**		**2%**
Miscellaneous Strategies					
Virtual Care Strategies for Hospitals	Implement options for virtual care for health services for hospitals.	2%			0%
On-Site Affordable Housing	Provide a percentage of on-site affordable housing for employees that is less than 100%.	1%			0%
Job Creation Land Use (e.g. Office)	Provide offices or other job creation land use. Applies to housing projects.	3%			0%
				Total VMT Reduction Applied to Proposed Project	**2%**

NOTES:
1. DIBS IS A TRANSPORTATION PROGRAM DESIGNED BY THE SAN JOAQUIN COUNCIL OF GOVERNMENTS TO INCENTIVIZE CARPOOLING OR ALTERNATIVE MODES OF TRANSPORTATION. THE WEBSITE IS LOCATED HERE: HTTPS://WWW.DIBSMYWAY.COM/
2. MINIMUM APPLIED TDM MEASURES ARE APPLICABLE WITH THE PROJECT PAYING ITS APPLICABLE VMT MITIGATION BANKING PROGRAM FEE.
3. MAXIMUM APPLIED TDM MEASURES ARE APPLICABLE IF THE PROJECT DOES NOT PAY ITS APPLICABLE VMT MITIGATION BANKING PROGRAM FEE OR IF THE VMT MITIGATION BANKING PROGRAM IS NOT ADOPTED AT THE TIME THE PROJECT APPLIES FOR PERMITS.
SOURCE: KIMLEY HORN, 2024.

Option 2: As a second option, if the draft VMT Mitigation Banking Fee Program is not adopted at the time the Project applies for a building permit, the proposed Project could be required to provide TDM measures that fully reduce VMT by 15%. Table 3.10-3 shows the list of TDM measures under this option.

CONCLUSION

Mitigation Measure 3.10-1, which requires TDM strategies, would be required. Implementation of Mitigation Measure 3.10-1 is feasible because it is within the applicant's purview to implement and the TDM measures have been found effective in previous academic studies. However, the precise effectiveness of specific TDM strategies can be difficult to accurately measure due to a number of external factors such as employee responses to strategies and changes to technology.

As part of Mitigation Measure 3.13-1, the proposed Project would be required to monitor and evaluate the effectiveness of the Project's TDM Plan and provide the results to the City of Tracy. Based on the results of the evaluation, modifications to the TDM Plan may be required by the City in order to improve effectiveness toward achieving the home-based work VMT per worker target.

Based on the above, even with the implementation of Mitigation Measure 3.10-1, the impact would remain ***significant and unavoidable*** when compared to the City of Tracy's VMT threshold of significance.

MITIGATION MEASURE(S)

Mitigation Measure 3.10-1: *Prior to commencement of any operational activities, the Project proponent shall implement either "Option 1" or "Option 2", as provided in the CEQA Transportation Analysis prepared by Kimley Horn on July 31, 2024. "Option 1" includes a combination of TDM measures plus a VMT Mitigation Banking Fee for the Project to achieve 15% VMT reductions (assuming the VMT Mitigation Banking Fee Program is adopted by the time the proposed Project is ready to apply for permits). Alternatively, as described under "Option 2", if the VMT Mitigation Banking Fee Program is not adopted at the time the proposed project is ready to apply for permits), the proposed Project would be required to provide TDM measures that fully reduce the VMT by 15%. See Table 2 of the CEQA Transportation Analysis prepared by Kimley Horn for the proposed list of TDM measures under this option.*

The TDM Plan shall be submitted to the City for review prior to approval of improvement plans, and the effectiveness of the TDM Plan shall be evaluated, monitored, and revised, if determined necessary by the City. The TDM Plan shall include the TDM strategies that will be implemented during the lifetime of the proposed Project and shall outline the anticipated effectiveness of the strategies. The anticipated effectiveness of the TDM Plan may be monitored through annual surveys to determine employee travel mode split and travel distance for home-based work trips, and/or the implementation of technology to determine the amount of traffic generated by and home-based work miles traveled by employees, which shall be determined in coordination with the City. The frequency and duration of the anticipated effectiveness would depend on the ultimate strategy determined in coordination with the City. Additionally, the Project applicant shall pay any VMT banking fee in effect at the time of building permit issuance to secure VMT credits of a total of 15 percent for the subject building, taking into account the stated percent efficacy for the TDM measures above.

Impact 3.10-2: Project implementation would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities (Less than Significant)

Implementation of the proposed Project would not result in a conflict with an existing or planned pedestrian facility, bicycle facility, or transit service/facility. In addition, the Project would not interfere with the implementation of a planned bicycle facility, pedestrian facility, or transit service/facility. The Project would not cause a degradation in transit service such that service does not meet performance standards established by the transit operator.

As described in the Environmental Setting, there is currently no existing pedestrian, bicycle, or transit service/facility within the undeveloped Project area. The City of Tracy General Plan describes an interconnected, hierarchical system of sidewalks, on-street bike lanes, and off-street trails for pedestrians and bicyclists that provides access to this area of the City of Tracy. The Project's transportation and circulation system is designed to accommodate access to and from West Schulte Road and pedestrian/bicycle facilities connecting the building to these roadways.

Additionally, as noted previously, the City's TMP builds upon the goals and objectives as defined in the Circulation Element of the City's General Plan (February 2011) and the Sustainable Action Plan (SAP) (February 2011). The TMP provides a complete review of the City's transportation system and serves as a comprehensive planning document that can be utilized to identify and implement required improvements to the existing roadway system. In addition, the TMP can serve as the baseline for incorporating expansion or accommodating future development consistent with the recent General Plan update. The proposed Project does not conflict with the City's TMP. The traffic analysis for the Project was completed consistent with the goals and policies of the TMP, including the required TDM Program.

Overall, this impact would be ***less than significant***.

Impact 3.10-3: Project implementation would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (Less than Significant)

CONSTRUCTION

Construction of the proposed Project would require regular deliveries of equipment and materials to the Project site as well as daily trips by construction workers. Project construction activities, including the extension of utility infrastructure, may result in some temporary lane closures in the area. Furthermore, standard construction traffic control measures would be implemented consistent with applicable Caltrans and City policies. Overall, this impact would be ***less than significant***.

OPERATION

Implementation of the proposed Project would not result in a geometric design feature that is inconsistent with applicable design standards for the City of Tracy. The Project would not result in a significant change to the vehicle mix or speed of traffic that is not compatible with the design of existing or planned facility design.

No site circulation or access issues have been identified that would cause a traffic safety problem/hazard or any unusual traffic congestion or delay that could impede emergency vehicles or emergency access. The Project does not include any design features or incompatible uses that pose a significant safety risk. The Project would create no adverse impacts to emergency vehicle access or circulation. Site access would be provided by two new driveways: one from the southwest, off of Hansen Road; and one from the north, off of West Schulte Road. Circulation would be improved with the on-site improvements to Hansen Road, including roadway resurfacing improvements and construction of a roundabout at the southwestern site access point.

The Project proposes an increased land use density, which would result in increased travel activity, including vehicle (cars and trucks), bicycle, pedestrian, and potentially transit trips. In order to provide access to and from the Project site, the accesses along West Schulte Road and Hansen Road will be designed to serve automobiles, bicyclists, pedestrians, and Surface Transportation Assistance Act (STAA) vehicles. The Project design would also be subject to the City's Engineering Design & Construction Standards, which includes a section for Street Design Standards. These Project-generated trips would be served by existing and planned facilities that are constructed to applicable design standards to serve these travel modes. Therefore, the proposed Project would not result in a change to the vehicle mix or speed of traffic that is not compatible with the design of existing or planned roadways and transportation facilities. This impact would be ***less than significant***.

Impact 3.10-4: Project implementation would not result in inadequate emergency access (Less than Significant)

Implementation of the proposed Project would not create roadway and transportation facilities that impede access for emergency response vehicles. The proposed site accessways and internal transportation network are designed to maintain levels of accessibility for police and fire response times, which ensures vehicles have the necessary access when responding to an emergency.

Several emergency (police and fire) services are located within the Project study area. The internal circulation is designed to meet City code for emergency vehicle access and would maintain high levels of emergency vehicle accessibility and mobility, which ensures vehicles have the necessary access when responding to an emergency. Emergency vehicles arriving from West Schulte Road will have unimpeded access to the Project site. Therefore, this impact would be ***less than significant***.

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This section describes the regulatory setting, impacts associated with wastewater services, water services, storm drainage, and solid waste disposal that are likely to result from Project implementation, and measures to reduce potential impacts to wastewater, water supplies, storm drainage, and solid waste facilities. This section is based in part on the following documents, reports and studies: *California's Groundwater, Urban Water Management Plan* (2020), Citywide *Water System Master Plan Update* (2023), Citywide *Storm Drainage Master Plan* (2022) *Wastewater Master Plan* (2023), and *Citywide Public Facilities Master Plan Update* (2023).

Four comments were received during the public review period or scoping meeting for the Notice of Preparation (NOP) regarding this topic by the Central Valley Regional Water Quality Control Board (January 16, 2024), San Luis & Delta-Mendota Water Authority (SLDMWA) (January 11, 2024), San Joaquin County Environmental Health Department (January 12, 2024), and Chevron (January 8, 2024). Full comments received are included in Appendix A.

As discussed in the Initial Study for the proposed Project (Appendix A), the addition of the volume of solid waste associated with the proposed project to the Foothill Landfill would not exceed the landfill's remaining capacity. Overall, the proposed project would be required to comply with applicable State and local requirements including those pertaining to solid waste, construction waste diversion, and recycling. The City would coordinate development of the proposed project with Tracy Disposal Service. Furthermore, the addition of the volume of solid waste associated with the proposed Project, approximately 0.2 tons per day, would increase the total tons of solid waste to the Material Recovery Facility to approximately 355 tons per day; however, this increase would not cause an exceedance of the landfill's remaining capacity. Therefore, the proposed project would not generate solid waste in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or exceed any State or local standards associated with solid waste. This is a less than significant impact.

3.11.1 WASTEWATER SERVICES

ENVIRONMENTAL SETTING

The City of Tracy's wastewater collection system consists of gravity sewer lines, pump stations and the Wastewater Treatment Plant (WWTP). The City has a municipal wastewater system handling both domestic and industrial wastewater. Wastewater flows toward the northern part of the city where it is treated at the WWTP and then discharged into the Old River in the southern Sacramento-San Joaquin Delta. The City of Tracy (City) is projecting residential and non-residential growth within its sphere of influence (SOI) that will require expansion of existing wastewater conveyance and treatment infrastructure. According to the Wastewater Master Plan Update (2023), the City's population of approximately 95,931 people generated an average dry weather flow (ADWF) of 7.35 million gallons per day (mgd). This flow is treated at the City's WWTP, which has an ADWF design capacity of 16.0 mgd.

Wastewater Conveyance

The existing wastewater collection system consists of three major interceptor systems. The Eastside collection system conveys wastewater from areas in the southeastern and eastern parts of the city, including the Northeast Industrial Area. The Corral Hollow sewer system conveys wastewater, mainly from residential development, from the southwestern part of the city. The Hansen sewer system conveys wastewater from the western and northern parts of the City including the Patterson Pass Business Park and the West Valley Shopping Center. The downtown area conveys wastewater directly to the WWTP using sewer mains in Holly Drive. The Project site is within the Corral Hollow sewer system area.

Wastewater Treatment

Wastewater from the City is currently treated at the WWTP. The WWTP is located between MacArthur Drive and Holly Drive just north of Interstate 205. The National Pollutant Discharge Elimination System (NPDES) permit CA 0079154 allows for discharge of 10.8 mgd and up to 16 mgd if applicable treatment facilities are constructed. The WWTP provides disinfected tertiary level treatment meeting Title 22 requirements of the Code of Regulations from the State Water Resource Control Board. The WWTP includes primary clarifiers, activated sludge, secondary clarifiers, flocculation, tertiary filtration, and disinfection.

The City's WWTP currently provides tertiary-level treatment for all flows received within the City's limits. Influent wastewater is primarily from domestic sources with the exception of industrial flows generated by Leprino Foods. Leprino Foods provides pretreatment to their industrial flows and sends it to the main plant for further treatment, entering at the primary clarifier. Treated and disinfected effluent is discharged to Old River via a 3.5-mile outfall pipeline and diffuser system. Stabilized biosolids are dried and hauled offsite for land application. There have been several modifications to the WWTP, with the extensive upgrades completed in 2007. At present, an additional digestor and primary clarifier is under construction to create additional treatment capacity to meet existing demands.

The existing headworks system includes three mechanical screens operating in a duty/ duty/standby configuration with a PWWF flow capacity of 38.7 mgd. Screen openings are 6 millimeters (mm) and provide acceptable trash removal for the current treatment scheme. Three screenings washer compactors are installed to remove organics from the screened material, which are then compacted and discharged to a hopper for disposal to landfill. Primary treatment includes a 90-foot-diameter circular clarifier, and an additional circular clarifier is under construction for future use.

A new activated sludge system was brought online as part of the 2007 construction project to replace the trickling filter activated sludge system. The activated sludge system comprises three 1.69-million-gallon (MG) aeration basins with anoxic selectors. Anoxic selectors comprise approximately 17 percent of the total basin volume and are equipped with mixers to keep solids in suspension. Fine-bubble diffusers are used to distribute the low-pressure air supply to the aerobic zones. Three mixed-liquor return pumps are installed for selector operation and not for enhanced

nitrogen removal. Solid separation is provided by three 100-foot diameter secondary clarifiers with a 14-foot-sidewater depth.

Secondary effluent is filtered using conventional deep bed filters with anthracite media. The filtration system includes eight cells with a total filter area of 4,400 square foot (ft^2). This results in a hydraulic loading rate of 2.9 gallons per minute per square foot (gpm/ft^2) at 16 mgd and 4.9 gpm/ft^2 at 27 mgd, with the latter being the current equalized flow rate. A chemical feed and storage system allows the plant to dose polymer upstream of the filters for enhanced performance.

The WWTP's disinfection system comprises chlorination and dichlorination processes. Tertiary effluent is dosed with chloramines and conveyed to chlorine contact basins for pathogen reduction. The current target chlorine concentration entering the chlorine contact basins is 10 mg/L. Chlorine and ammonia injection is achieved using an in-line chemical induction system that allows mixing of the chemical solutions prior to injection to the tertiary effluent. Six chlorine contact basins have a total volume of 1.15 MG, each consisting of a baffled basin to provide plug flow conditions and to prevent short circuiting. Dichlorination is provided using sulfur dioxide to neutralize the chlorine from the plant effluent before discharging into Old River. Post-aeration is provided to achieve a final effluent dissolved oxygen concentration of 5 mg/L, as required by the NPDES permit.

Solids handling includes thickening, stabilization, and dewatering processes. Waste activated solids (WAS) are currently thickened using two dissolved air floatation thickeners. Thickened WAS is pumped to digestion via progressing cavity pumps. Thickened WAS and primary sludge are stabilized with two 75-foot anaerobic digesters. Digester gas is used to fuel boilers for digester heating as well as produce hot water for use in Headworks screen cleaning with unused gas flared to the atmosphere. Digested solids are centrifuged as well as dewatered in drying beds with a total area of approximately 445,000 ft.

Planned Infrastructure Upgrades

Both the 2023 Citywide Water System Master Plan and Wastewater Master Plan included recommended capital improvement projects for the development of the City's recycled water system, including pump station and pipeline facilities to deliver recycled water within the City's service area for use for landscape irrigation and other non-potable uses. Further, the City's Wastewater Master Plan outlines future WWTP improvement projects, prioritized in the following order:

- Upgrade existing facilities to mitigate current capacity deficiencies.
- Upgrade existing facilities to accommodate increased wastewater flows associated with long term planning (2040) and buildout.
- Construct new infrastructure required to serve future users.

The proposed capital improvements are prioritized based on their urgency to mitigate existing deficiencies and for serving future growth. The capital improvements are phased according to the following improvement categories:

- Phase 1 (2022-2026): This phase includes projects that are targeted as highest priority existing improvements.
- Phase 2 (2027-2030): This phase includes medium priority existing improvements.
- Phase 3 (2031-2040): This phase includes low priority existing improvements, as well as projects triggered by growth that is expected to occur by the year 2040.
- Phase 4 (2041 and beyond): This phase includes improvements related to ultimate buildout of the City.

REGULATORY SETTING

Clean Water Act / National Pollutant Discharge Elimination System Permits

The Clean Water Act (CWA) is the cornerstone of water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA regulates discharges from "non-point source" and traditional "point source" facilities, such as municipal sewage plants and industrial facilities. Section 402 of the Act creates the NPDES regulatory program which makes it illegal to discharge pollutants from a point source to the waters of the United States without a permit. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). NPDES permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, storm water associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than one acre, mining operations, and animal feedlots and aquaculture facilities above certain thresholds.

Permit requirements for treatment are expressed as end-of-pipe conditions. This set of numbers reflects levels of three key parameters: (1) biochemical oxygen demand (BOD), (2) total suspended solids (TSS), and (3) pH acid/base balance. These levels can be achieved by well-operated sewage plants employing "secondary" treatment. Primary treatment involves screening and settling, while secondary treatment uses biological treatment usually in the form of "activated sludge."

All so-called "indirect" dischargers are not required to obtain NPDES permits. An indirect discharger is one that sends its wastewater into a city sewer system, so it eventually goes to a sewage treatment plant. Although not regulated under NPDES, "indirect" discharges are covered by another CWA program called pretreatment. "Indirect" dischargers send their wastewater into a city sewer system, which carries it to the municipal sewage treatment plant, through which it passes before being discharged to surface water.

The City's current NPDES Permit, which regulates the wastewater effluent quantity and quality upon discharge, was issued by the Central Valley Regional Water Quality Control Board and is Order R5-2007-0038.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State is required to adopt policies, plans, and objectives that will protect the State's waters for the use by and enjoyment of Californians. In California, the SWRCB has the authority and responsibility for establishing policy related to the State's water quality. Regional authority is delegated by the SWRCB to a Regional Water Quality Control Board (RWQCB). The Porter-Cologne Act authorizes the SWRCB and RWQCB to issue NPDES permits.

Under the Central Valley Regional Water Quality Control Board (CVRWQCB) NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge.

City of Tracy General Plan

The City of Tracy General Plan includes several policies that are relevant to wastewater. General Plan policies applicable to the Project are identified below:

POLICIES: PUBLIC FACILITIES ELEMENT

- PF-7.1-P1. The City shall maintain wastewater conveyance, treatment and disposal infrastructure in good working condition in order to supply municipal sewer service to the City's residents and businesses.
- PF-7.1-P2. The City shall expand the existing wastewater treatment plant to the extent possible or pursue a single new west side facility instead of building new facilities at multiple locations to meet future needs.
- PF-7.1-P3. New habitable structures located within the City limits shall connect to the public wastewater collection system.
- PF-7.2-P1. Wastewater collection and treatment facilities shall be designed to serve expected buildout of the areas served by these facilities but constructed in phases to reduce initial and overall costs.
- PF-7.2-P2. The City shall construct new wastewater trunk lines as needed. Individual development projects shall be responsible for construction of all collection lines other than trunk lines.
- PF-7.2-P3. The approval of new development shall be conditioned on the availability of sufficient capacity in the wastewater collection and treatment system to serve the project.
- PF-7.2-P4. "Package" treatment plants shall not be allowed in the City.
- PF-7.2-P5. New development shall fully fund the cost of new wastewater treatment and disposal facilities.

- PF-7.2-P6. Prior to any development approvals within an Urban Reserve, the City shall complete new wastewater master planning and wastewater treatment and disposal studies, particularly for the west side of the city. These studies are to be funded by proponents of new development and must show how adequate wastewater treatment will be provided to the Urban Reserve in question.
- PF-7.3-P1. New wastewater treatment plants should be located to allow for distribution of recycled water to application areas by gravity flow where feasible.
- PF-7.3-P2. The City shall integrate public facilities and wastewater reclamation sites with agricultural and open space preservation programs where feasible.
- PF-7.3-P3. Biosolid disposal shall be managed so as to minimize impacts to the environment and public health.
- PF-7.3-P4. The City shall establish wastewater treatment demand reduction standards for new development and redevelopment to reduce per capita and total demand for wastewater treatment.

City of Tracy Municipal Code

The City of Tracy Municipal Code (Code), Article 4, Wastewater Discharge Surveys, Permits, Monitoring, and Administration, consists of a number of provisions relating to wastewater, including Section 5.24.390 (Wastewater discharge surveys) which requires that all potential dischargers, as determined by the City, must file an annually updated Discharge Survey Report. Section 5.24.410 (Mandatory Discharge Permits) requires significant industrial users connecting to or discharging into the sewer to obtain a wastewater discharge permit. The application for the wastewater discharge permit must include a baseline monitoring report that details wastewater constituents and characteristics and total, average, and peak wastewater flow rates, spill prevention and control measures, and certification that Pretreatment Standards are being consistently met, in compliance with Section 5.24.440 (Permit application and baseline monitoring report) of the Code. Wastewater Discharge Permits may contain a variety of conditions, as described in Section 5.24.450 (Permit conditions) of the Code, including the average and maximum allowable wastewater constituents and characteristics, limits on rate and time of discharge, specifications for monitoring programs, civil penalties and fees for non-compliance, and specifications as to what waste streams are authorized for discharge. Other sections of the Code relevant to wastewater include Section 5.24.550 (Data Collection) and Section 5.24.560 (Reporting Requirements) which describe the information that wastewater dischargers must provide, how such information will be collected, and the various standards that must be met in order to comply with discharge reporting requirements.

Utility Master Plans

The City of Tracy maintains a variety of Master Plan documents that guide the design, development, and maintenance of the utilities within the city limits. These include: *Urban Water Management Plan* (2020), Citywide *Water System Master Plan Update* (2023), Citywide *Storm Drainage Master Plan* (2022) *Wastewater Master Plan* (2023), and *Citywide Public Facilities Master Plan Update* (2023).

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact on the environment associated with Utilities if it will:

- Require or result in the relocation or construction of new or expanded wastewater treatment and/or collection facilities, the construction of which could cause significant environmental effects.
- Result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the providers existing commitments.

IMPACTS AND MITIGATION MEASURES

Impact 3.11-1: The proposed project does not have the potential to result in a determination by the wastewater treatment and/or collection provider which serves the project that the provider does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (Less than Significant)

WASTE DISCHARGE REQUIREMENTS (WDRS) BOARD ORDER NUMBER NO R5-2007-0036 (NPDES PERMIT NO. CA0079154)

The NPDES permit for the Tracy WWTP was adopted in May 2007 with proposed amendments initiated in 2008 and 2010. Treated wastewater from the Tracy WWTP is discharged to Old River under Order No. R5-2007-0036 (NPDES No. CA0079154). Because, in the opinion of the Water Board, there is a potential impact to groundwater at the facility, the Tracy WWTP's industrial pretreatment ponds, industrial holding ponds, sludge drying beds, and biosolids storage areas of the facility are regulated by separate waste discharge requirements as defined in Order No. R5-2007-0038. The NPDES permit CA 0079154 allows for discharge of 10.8 mgd and up to 16 mgd if applicable treatment facilities are constructed. The WWTP provides disinfected tertiary level treatment meeting Title 22 requirements of the Code of Regulations from the State Water Resource Control Board. The WWTP includes primary clarifiers, activated sludge, secondary clarifiers, flocculation, tertiary filtration, and disinfection.

The City's WWTP currently provides tertiary-level treatment for all flows received within the City's limits. Influent wastewater is primarily from domestic sources with the exception of industrial flows generated by Leprino Foods. Leprino Foods provides pretreatment to their industrial flows + disinfected effluent is discharged to Old River via a 3.5-mile outfall pipeline and diffuser system. Stabilized biosolids are dried and hauled offsite for land application. There have been several modifications to the WWTP, with the most recent and extensive upgrades completed in 2007 and most recently an additional digestor and primary clarifier is under construction to create additional treatment capacity to meet existing demands.

The existing headworks system includes three mechanical screens operating in a duty/ duty/standby configuration with a PWWF flow capacity of 38.7 mgd. Screen openings are six mm and provide acceptable trash removal for the current treatment scheme. Three screenings washer compactors are installed to remove organics from the screened material, which are then compacted and discharged to a hopper for disposal to landfill. Primary treatment includes three sedimentation basins, one 90-foot-diameter circular clarifier, and two 72-foot by 32-foot rectangular clarifiers. Currently, only the circular clarifier is in service, with the rectangular basins on standby.

The City of Tracy's wastewater treatment system is currently in compliance with the WDR requirements of Order No. R5-2007-0036 NPDES NO. CA0079154 ("WDR Order"). The wastewater treatment system options covered under this Order include: City of Tracy WWTP including the collection system, basin/disposal fields, discharge to the Old River, and recycling conveyance and irrigation system.

The City's *Wastewater Quality Master Plan Update* includes projected wastewater generation factors for various land uses. The study includes a reduction of industrial and general commercial wastewater generation factors to reflect historical water use data from local businesses.

The overall collection sewer strategy for the City of Tracy, including the proposed Project, consists of a combination trunk sewer gravity collection system with pump or lift stations located along the collection system to convey wastewater to an influent pump station located at the City WWTP.

The average dry weather flow (ADWF) for the proposed Project was calculated based on the wastewater generation factors adopted in the 2012 Wastewater Master Plan. As shown in the Sewer Collection System Hydraulic Capacity Analysis completed for the Project (Appendix I), the total ADWF for the proposed Project is approximately 22,092 gallons per day (gpd) (or 0.02 mgd) based on a wastewater generation factor of 1,056 gpd/gross acre for the industrial land use designation. The wastewater would be treated at the WWTP, which has an ADWF design capacity of 10.8 mgd. Additionally, the City is in the process of constructing facilities to increase the capacity of the WWTP to address growth in the future. Based on the Sewer Collection System Hydraulic Capacity Analysis completed for the proposed Project, the existing WWTP has the capacity to treat and dispose of the proposed 0.02 mgd increase in flows from the proposed project in addition to the existing service demands. As part of the City's Project review and approval process, the Engineering Division confirms that sewer capacity to accommodate a project is adequate prior to project approval.

The development of the proposed Project under this permitted option would not exceed the wastewater discharge requirements in the WDR Order. The proposed Project is anticipated to have a ***less than significant*** impact relative to this topic.

Impact 3.11-2: The proposed Project has the potential to require or result in the construction of new wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (Less than Significant)

A Sewer Collection System Hydraulic Capacity Analysis was prepared for the proposed project by Blackwater Consulting Engineers on October 12, 2022 (as provided in Appendix I). The Sewer Collection System Hydraulic Capacity Analysis identified that the existing Hansen Road Sewer System and the Hansen Pump Station currently have the capacity to serve the proposed project. No off-site improvements are required to serve the proposed project. The wastewater collection and conveyance system that will serve the proposed Project will consist of engineered infrastructure consistent with the City's existing infrastructure requirements.

New wastewater collection and conveyance infrastructure needed for the proposed Project will require trenching/excavation of earth, and placement of pipe within the trenches at specific locations, elevations, and gradients. Utility lines within the Project site and adjacent roadways would be extended throughout the Project site. The Project proposes one connection to the existing sewer pipeline at the intersection of Schulte Road and Hansen Road. The proposed point of connection to the existing system is at an existing manhole in Schulte Road that conveys flows north via a 21-inch diameter sewer pipeline to the Hansen Sewer System and east via an existing 8-inch diameter sewer pipeline.

A majority of the sewer will flow north into the existing 21-inch sewer pipeline in Hansen Road and the rest will flow into the existing 8-inch sewer pipeline in Schulte Road based on the existing pipeline invert elevations at the proposed connection. The existing facilities have undergone environmental review and have waste discharge permits from the State. The proposed facilities will be located within the bounds of the Project site, or within the adjacent Schulte Road and Hansen Road.

The applicant will refine the wastewater collection/conveyance infrastructure design through the development of improvements plan which will undergo a review by the Public Works Department to ensure consistency with the City's engineering standards. This improvement plan process will include full engineering design (i.e. location, depth, slope, etc.) of all conveyance infrastructure as well as a review of new sewer pump stations and new force mains if needed. Ultimately, the sanitary sewer collection system will be an underground collection system installed as per the City of Tracy standards and specifications. Sanitary sewer disposal and treatment will be to the City of Tracy WWTP.

The development of the proposed Project would not exceed the wastewater discharge requirements in the Waste Discharge Requirement (WDR) Order. The City of Tracy WWTP has the capacity to treat and dispose of the proposed 0.02 mgd increase in flows from the proposed Project. Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

3.11.2 WATER SUPPLIES

ENVIRONMENTAL SETTING

The City receives water supplies from three sources: Central Valley Project via the Delta Mendota Canal (DMC), South County Water Supply Project (SCWSP) via the Stanislaus River, and groundwater from nine wells. The United States Bureau of Reclamation (USBR) is the wholesale supplier for the Central Valley Project water and the South San Joaquin Irrigation District (SSJID) is the wholesale supplier for the South County Water Supply Project. The proposed Project, if approved by the City, is capable of being served by the City from the City's existing and future portfolio of water supplies. The water supply for the proposed Project will have the same water supply reliability and water quality as the water supply available to each of the City's other existing and future water customers.

The City's most recently adopted 2020 *Urban Water Management Plan* (UWMP) was adopted by the City Council in June 2021. The City's 2020 UWMP included existing and projected water demands for existing and projected future land uses to be developed within the City's Sphere of Influence through 2045. The water demand projections in the City's 2020 UWMP included existing City water demands, future water demands for developments within the existing City limit, and future water demands for future service areas outside the existing City limit. The following information is based on the City's 2020 UWMP.

City of Tracy Water Service

This section presents the City's water service area including history and growth information for the City.

CITY OF TRACY WATER SERVICE AREA

The City of Tracy is located in San Joaquin County, California, about 68 miles south of Sacramento and 60 miles east of San Francisco. The existing incorporated area of the City encompasses approximately 22 square miles. The City's General Plan includes the area outside of the City limits that the City expects to annex and urbanize in the future. It is the expected physical limit of the City based on the most current information.

The City's water service area is coterminous with the City limits. As future developments within the SOI, but outside the City Limits, are approved, they will be annexed into the City and served by the City water system.

CITY OF TRACY CURRENT AND PROJECTED POPULATION

The population estimates for 2020 through 2045 presented in the 2020 UWMP are projected using the methodology used in the City's Water System Master Plan (WSMP) Update, which is currently in draft form. It incorporates assumptions about the number of dwelling units for each proposed development and planning area at buildout, an assumed number of people per dwelling unit (people/du), and the timing of planned development over this time frame. Table 3.11-1 shows the City's projected population in five-year increments to the year 2045.

TABLE 3.11-1: HISTORICAL AND PROJECTED POPULATION FOR CITY OF TRACY WATER SERVICE AREA

CALENDAR YEAR	*ESTIMATED POPULATION*
2015	85,707
2020	96,345
2025	109,900
2030	120,367
2035	130,833
2040	141,300
2045	166,700

SOURCE: CITY OF TRACY 2020 UWMP, TABLE 3-1, CURRENT AND PROJECTED SERVICE AREA POPULATION.

City of Tracy Water Demand

EXISTING AND PROJECTED WATER DEMAND

The City's water demand has increased significantly in the last 30 years. In 1986, the City's water demand was 8,104 AFY and by 2007 the City's water demand had increased to 19,176 AFY. In recent years, the City's water demand has decreased as a result of the economic downturn of 2008 through 2011 and water use reductions in response to recent drought conditions. Water demands have rebounded (increased) somewhat in recent years with the end of drought conditions and increased development activity. Table 3.11-2 shows the City's water demand (based on water production) from 2012 to 2020.

TABLE 3.11-2: HISTORICAL POTABLE WATER DEMAND

	2012	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*
Total Water Demand (AFY)	18,052	18,587	16,213	14,041	15,360	18,160	17,420	17,672	19,527

SOURCE: CITY OF TRACY 2020 UWMP, TABLE 4-2 CURRENT AND HISTORICAL POTABLE WATER DEMAND AND POPULATION, JUNE 2021.

The City's water demand is anticipated to continue to increase as approved projects build out and new developments are approved and constructed within the City's water service area in accordance with the City's General Plan. However, as discussed above, the rate of growth within the City's water service area has slowed as a result of the GMO and the slow economic recovery from the economic downturn between 2008 and 2011. Hence, water demands are not anticipated to increase as rapidly as they have in past years. However, in the 2020 UWMP, buildout is assumed to occur in 2045 to be conservative in the water reliability analysis.

The 2020 UWMP projected water demands, as documented in the City's 2020 UWMP, are shown in Table 3.11-3.

TABLE 3.11-3: PROJECTED WATER DEMAND, AFY

CONDITION	*2025*	*2030*	*2035*	*2040*	*2045*
Potable Water Demand	20,509	23,100	25,738	28,403	33,079
Recycled Water Demand	1,000	2,067	3,133	4,200	6,300
Total Water Demand	**21,509**	**25,167**	**28,871**	**32,603**	**39,379**

SOURCE: CITY OF TRACY 2020 UWMP, TABLE 4-8 GROSS WATER USE, JUNE 2021.

DRY YEAR WATER DEMAND

The projected future water demand presented in Table 3.11-3 includes continued implementation of the City's existing water conservation program demand management measures and is based on future normal hydrologic years. In the 2020 UWMP, the additional water conservation which may occur in single dry or multiple dry years was not assumed to happen. This was a conservative assumption as additional water conservation would likely occur as a result of the City's implementation of additional water conservation measures as outlined in the City's Water Shortage Contingency Plan in response to multiple dry years or other water supply shortages. The City's Water Shortage Contingency Plan includes shortage response actions to reduce water demand and manage supply for water shortage conditions of up to and greater than 50 percent.

City of Tracy Potable Water Supplies

The City currently receives water from the following sources:

- Untreated surface water from the Delta-Mendota Canal (Central Valley Project) (treated at the City's John Jones Water Treatment Plant);
- Surface water from the Stanislaus River via the South County Water Supply Project (delivered by the SSJID);
- Groundwater pumped from nine groundwater wells located within the City; and
- Untreated surface water from the Byron Bethany Irrigation District (BBID) pre-1914 rights (treated at the City's John Jones Water Treatment Plant).

Also, the City has entered into an agreement with the Semitropic Water Storage District for storage of water supplies for use in dry years and has implemented an Aquifer Storage and Recovery (ASR) Program to allow for injection of surface water supplies into the underlying groundwater basin for storage and later extraction. Each of these existing supplies is described below. Summary tables listing the City's existing and additional planned future water supplies, and historical and anticipated future quantities, are provided following the discussion of the City's additional planned future water supplies.

SURFACE WATER SUPPLY

Central Valley Project Water via the Delta-Mendota Canal

The City has contractual entitlements for Central Valley Project (CVP) water. In the aggregate, the City's contractual entitlement to the municipal and industrial (M&I) reliability CVP water and assignments of agricultural (Ag) reliability water CVP water from BCID and WSID are referred to as the City's "Existing Contract" with the United States Bureau of Reclamation (USBR). The total quantity of CVP water available to the City under its Existing Contract is 20,000 AFY (10,000 AFY of M&I-reliability water and 10,000 AFY of Ag-reliability water).

The City's CVP water supplies are treated at the City's John Jones Water Treatment Plant (JJWTP), which was originally constructed in 1979, expanded in 1988, and then expanded again in 2008. The

JJWTP is located just north of the DMC in the southern portion of the City. With the latest plant expansion, the current treatment capacity of the JJWTP is 30 million gallons per day (mgd) which is sufficient to treat all of the City's CVP water supplies.

The City also treats and serves CVP water purchased by others. Over the period 2010 through 2018, an average of approximately 630 AFY of water from the Plain View Water District's (now BBID's) USBR allocation was treated at the JJWTP and delivered to the Patterson Pass Business Park through the City's water distribution system. A comparable quantity of BBID water is anticipated to be treated and delivered annually to the Patterson Pass Business Park in the future. Neither the water supply nor the demand for Patterson Pass Business Park are included in the City supply and demand estimates because the water supply is BBID's, not the City's, and the City only provides water treatment, delivery and billing services on a contractual basis for the Patterson Pass Business Park; the City does not manage either the supply or the demand.

For the Citywide Water System Master Plan Update, consistent with the City's 2020 UWMP, the following assumptions have been made with regards to delivery of M&I-reliability supplies from the CVP under the various hydrologic conditions:

- Normal Years: 75 percent of historical use;
- Single Dry Years: 25 percent of historical use;
- Multiple Dry Years: 40 percent of historical use.

Surface Water from BBID Pre-1914 Water Rights

Part of the proposed Tracy Hills Specific Plan area was annexed into the BBID and is entitled to water service from BBID, using BBID's pre-1914 appropriative water rights. This water is delivered to the City via the DMC and is treated at the City's JJWTP before delivery to the Tracy Hills Project. The City anticipates that up to 4,500 AFY of pre-1914 water rights water could be provided by BBID on a year-round basis to serve the Tracy Hills Project in the BBID service area. However, the volume of water available to the City through this agreement is limited to the demand in the BBID service area portion of the Tracy Hills Project. The projected potable water demand in this area is estimated to be 3,330 AFY at buildout. Because the water supply is based on pre-1914 appropriative rights, the supply has historically been considered to be firm and well-established.

Stanislaus River Water

The City, in partnership with the cities of Manteca, Lathrop and Escalon, and the SSJID, have constructed a surface water treatment plant near Woodward Reservoir in Stanislaus County and a transmission pipeline to deliver treated surface water to each city. The project is called the South County Water Supply Project (SCWSP). This water supply is based on SSJID's senior pre-1914 appropriative water rights to the Stanislaus River, coupled with an agreement with the USBR to store water in New Melones Reservoir.

As part of the SCWSP, the City was initially allocated up to 10,000 AFY of water. In 2006, the City entered into a temporary contract with Escalon to purchase Escalon's allocation of 2,015 AFY of SCWSP supply until Escalon constructs the necessary infrastructure to convey the SCWSP water;

this contract is anticipated to sunset in 2025. In August 2013, the City purchased an additional 1,120 AFY of SCWSP entitlement from the City of Lathrop. Thus, the City's current contractual amount of SCWSP water is 13,135 AFY in total. Once the agreement with Escalon sunsets (anticipated to occur in 2025), the City's contractual allocation will be reduced to 11,120 AFY .

GROUNDWATER SUPPLY

The City's surface water supply is supplemented by local groundwater. The City overlies a portion of the San Joaquin Valley Groundwater Basin-Tracy Subbasin (Tracy Subbasin). The City currently operates eight groundwater production wells and one ASR well. Four wells (Production Wells 1, 2, 3 and 4) are located near the City's JJWTP and pump directly into the JJWTP clearwells, where the groundwater is blended with treated surface water. Four other wells (Lincoln Well, Lewis Manor Well (Well 5), Park and Ride Well (Well 6), and Ball Park Well (Well 7) are located throughout the City and pump water directly into the distribution system after disinfection. The City's newest well, Well 8, located near the intersection of Tracy Boulevard and 6th Street, is an ASR Well, and is capable of injecting treated surface water into the aquifer for storage and extracting it for later use.

The City overlies the Tracy Subbasin (Basin; Department of Water Resources [DWR] 5-22.15) of the San Joaquin Valley Groundwater Basin (DWR 5-22). The Tracy Subbasin is not adjudicated, and it is not in a condition of critical overdraft.

As a DWR-designated medium priority basin, the Tracy Subbasin is subject to the requirements of the Sustainable Groundwater Management Act (SGMA), including the requirement to be covered by one or more GSAs and to prepare and submit to DWR one or more GSPs by 31 January 2022. The GSP for the Tracy Subbasin has been adopted by the GSAs and was submitted to DWR by the statutory deadline of January 31, 2022.

Based on a groundwater study the City completed in 2001 (Bookman-Edmonston, 2001), the City is able to withdraw up to 9,000 AFY from the Tracy Subbasin on an average annual basis. However, groundwater production is constrained by the City's well production and treatment capacity, as the infrastructure is aging. Production is further limited by the water quality issues of the City's groundwater supplies, including high TDS concentrations, hardness, and potential formation of chloramines. As the Groundwater Sustainability Plan (GSP) for the Tracy Subbasin is developed and implemented, the City's groundwater supply reliability may be revisited.

Historical Groundwater Use

As discussed previously, the City currently operates eight groundwater extraction wells and one ASR well. The total production capacity of all of the wells combined is 28.2 mgd, which would equate to a total annual production capability of about 31,600 AFY if the wells were pumped continuously; however, as described above, the City's maximum annual groundwater extraction rate has been established to be 9,000 AFY. Historically, groundwater had accounted for up to 50 percent of the City's water supply. Prior to 2001, groundwater extraction in Tracy totaled less than 6,000 AFY. Between 2001 and 2004, to meet increased demands for water, Tracy began extracting

additional groundwater, ranging from 6,878 to 7,717 AFY. In 2005, groundwater extraction decreased to approximately 6,000 AFY because: (1) the SCWSP was completed and the City began receiving Stanislaus River water, and (2) rainfall was above normal, meaning that the City received a high percentage of its DMC/CVP contractual entitlements. From 2006 to 2010, groundwater extraction ranged from 3,672 AFY to 498 AFY, declining as more water was used from SSJID. The City's groundwater production over the last several years is provided in Table 3.11-4.

TABLE 3.11-4: HISTORICAL GROUNDWATER PRODUCTION, AFY

	2012	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*	*2019*	*2020*
Total Groundwater Production (AFY)	252	515	680	519	648	995	817	645	1,181

SOURCE: CITY OF TRACY 2020 UWMP, TABLE 5-1, CURRENT AND HISTORICAL WATER SUPPLY.

Other groundwater users in the Tracy area include the West Side Irrigation District, Naglee-Burk Irrigation District, Plain View Water District (now the Byron Bethany Irrigation District), and Banta-Carbona Irrigation District. The 2001 Estimated Groundwater Yield Study, which established the City's estimated groundwater yield of 9,000 AFY, considered the cumulative groundwater usage in the study area by the City and other users in the Tracy area.

Project Future Groundwater Use

The City may sustainably pump up to 9,000 AFY from the local groundwater basin. Since the hard, high TDS groundwater is of lower quality than the City's surface water sources, the City has scaled back its groundwater extraction in most years. Table 3.11-5 shows the anticipated future groundwater production during a normal year and during dry years.

The projected use of groundwater during dry years shown in Table 3.11-5 are consistent with the City's Groundwater Management Policy. In the event that the City is unable to secure additional high-quality surface water supplies in the future, the City is able to expand groundwater production up to 9,000 AFY. In the event of a severe water supply shortage or emergency, the City has the ability to increase production dramatically, up to 22,000 AFY .

TABLE 3.11-5: PROJECTED FUTURE GROUNDWATER PRODUCTION IN NORMAL AND DRY YEARS, AFY

	2020	*2025*	*2030*	*2035*	*2040*	*2045*
Total Groundwater Production During a Normal Year (AFY)	2,500	2,500	2,500	2,500	2,500	2,500
Total Groundwater Production During Dry Years (AFY)	4,500	4,500	4,500	4,500	4,500	4,500

SOURCE: CITY OF TRACY 2020 UWMP, TABLE 7-2, PROJECTED POTABLE WATER SUPPLY IN NORMAL YEARS.

As can be seen in Table 3.11-5, the City anticipates that total extraction during a normal year will be 2,500 AFY through the planning horizon. By reducing groundwater extraction on an average annual basis, the City will: (1) increase the overall quality of its drinking water, thus increasing customer satisfaction and reducing system maintenance and repair caused by the lower-quality groundwater; and (2) recharge the underlying aquifer, effectively increasing the availability of groundwater during a drought or emergency condition (i.e., effectively "banking" groundwater). At

the production volumes shown in Table 3.11-5, the City's groundwater supplies are considered to be 100 percent reliable.

Potable Water Supply Availability and Reliability

The City's surface water and groundwater supply reliability as described in the City's 2020 UWMP is summarized below.

The reliability of each of the City's existing and additional planned water supplies and their projected availability during normal, single dry, and multiple dry years as described in Section 6 of the City's 2020 UWMP, is described below and summarized in Table 3.11-6.

TABLE 3.11-6: WATER SUPPLY RELIABILITY IN NORMAL, SINGLE DRY AND MULTIPLE DRY YEARS, AFY

SUPPLY SOURCE	ANTICIPATED RELIABILITY (% OF ENTITLEMENT)		
	NORMAL YEARS	SINGLE DRY YEARS	MULTIPLE DRY YEARS
EXISTING WATER SUPPLIES			
USBR CVP			
M&I Reliability Water (Tracy Contract)	75%	25%	40%
Ag Reliability Water (BCID & WSID Contract)	50%	0%	0%
South County Water Supply Project	100%	56-76%	56-100%
Groundwater	100%	100%	100%
BBID (pre-1914)	100%	100%	100%
Semitropic Water Storage Bank	--	0%	67%
Aquifer Storage and Recovery	--	100%	100%
ADDITIONAL PLANNED FUTURE WATER SUPPLIES			
USBR CVP (BBID contract) (Ag Reliability Water)	0%	0%	0%
Recycled Water Exchange (Potable) otable)	100%	100%	100%
Recycled Water (for non-potable uses	100%	100%	100%

[A] ALTHOUGH THE CITY CAN SUSTAINABLY EXTRACT UP TO 9,000 AFY OF GROUNDWATER ON A CONTINUOUS BASIS, THE CITY IS PLANNING TO SCALE BACK ITS GROUNDWATER EXTRACTION IN NORMAL YEARS TO INCREASE THE OVERALL QUALITY OF ITS WATER SUPPLY. WITH THESE REDUCED SUPPLY VOLUMES, THE GROUNDWATER RESOURCE IS CONSIDERED 100 PERCENT RELIABLE.

[B] DUE TO THE DIFFICULTIES EXPERIENCED BY THE CITY IN ACCESSING STORED WATER VIA THE DMC, THE CITY HAS CONSERVATIVELY ASSUMED THAT 0% OF THE CITY'S SEMITROPIC WATER SUPPLY WILL BE AVAILABLE IN THE FIRST YEAR OF A MULTIPLE DRY YEAR PERIOD AND 100% WILL BE AVAILABLE IN THE SECOND AND THIRD YEAR. THE 67% PRESENTED IN THIS TABLE FOR MULTIPLE DRY YEARS IS THE AVERAGE VALUE FOR A THREE-YEAR PERIOD.

[C] ALTHOUGH RECYCLED WATER SUPPLIES ARE CURRENTLY AVAILABLE FROM THE CITY'S WWTP, REQUIRED RECYCLED WATER PIPELINES AND PUMP STATIONS TO CONVEY AND DELIVER THE RECYCLED WATER TO THE RECYCLED WATER USE AREAS HAVE NOT YET BEEN CONSTRUCTED. SEE SECTION 6.3.1 OF THE UWMP FOR ADDITIONAL INFORMATION REGARDING THE CITY'S PLAN FOR IMPLEMENTATION OF ITS RECYCLED WATER SYSTEM.

NORMAL YEARS

Normal or wet water years are those water years that match or exceed median rainfall and runoff levels. The following describes the availability and reliability of the City's existing and additional planned future water supplies under normal year conditions:

- The City's contract with the USBR for 10,000 AFY of DMC/CVP water is subject to M&I reliability. Based on the historical record, the City's long-term average allocation of

DMC/CVP water pursuant to this contract is anticipated to be at least 85 percent of the total entitlement. However, due to recent environmental concerns in the Delta and potential future impacts due to climate change, the normal year supply of DMC/CVP M&I water is assumed to be 75 percent of the City's historical use. Based on a historical use of 5,930 AFY (i.e., the average quantity of CVP water put to beneficial use by the City during the last three years of water deliveries that were unconstrained by the availability of CVP water), the projected normal year supply is 4,448 AFY.

- The City has received acquired assignments from Banta-Carbona Irrigation District (BCID; 5,000 AFY) and West Side Irrigation District (WSID; 5,000 AFY) for a total entitlement of 10,000 AFY of DMC/CVP water. These supplies are subject to Ag-reliability. The City is conservatively estimating that it will receive 50 percent of its Ag-reliability contractual entitlement, or 5,000 AFY, in normal years.

- The City has acquired up to 4,500 AFY of pre-1914 appropriative water rights water from BBID. These supplies are restricted in their place of use, and therefore the supply is anticipated to be equal to the projected demand within that place of use (i.e., the Tracy Hills area) ranging from 800 AFY in 2025 to 3,300 AFY in 2045. The City anticipates being able to receive 100 percent of this supply in normal years.

- The City has a total contractual entitlement of 13,135 AFY of Stanislaus River water provided through the SCWSP, including 10,000 AFY from its original contract with SSJID, 1,120 AFY purchased from Lathrop, and 2,015 AFY purchased on an interim basis from Escalon. The agreement between Tracy and Escalon is assumed to terminate after 2025. Based on information provided by SSJID, the City expects to receive 100 percent of its SCWSP water supply allocation during a normal water year. As such, the City anticipates being able to receive 13,135 AFY of SCWSP supply in 2025 and 11,120 AFY afterwards, assuming normal year conditions.

- The City is able to withdraw up to 9,000 AFY of groundwater from the Tracy Subbasin. However, due to the aging infrastructure and water quality issues in the City's groundwater supplies, the City is projecting to be able to withdraw up to 2,500 AFY in normal years. This groundwater supply is considered to be 100 percent reliable.

- The City does not anticipate using its Semitropic water or ASR water in normal years.

- The City anticipates that a Recycled Water Distribution Network and Exchange agreement will be executed with the USBR by 2030 to provide additional CVP supplies to the City in exchange for the City discharging a like amount of tertiary-treated recycled water to the DMC. The City assumes that the Recycled Water Distribution Network and Exchange will be implemented as needed to meet future demand conditions and is currently projected to supply an amount ranging from 1,925 AFY in 2030 to 7,500 AFY in 2045. This water supply is considered to be 100 percent reliable.

The City's recycled water supply is expected to be 100 percent reliable. Based on the projected non-potable demands and assuming that the City makes investments in infrastructure and

permitting, the City estimates that they will have access to 1,000 AFY of recycled water supply in 2025, increasing to 6,300 AFY in 2045.

SINGLE DRY YEARS

During a single dry year, all of the City's existing surface water allotments are subject to some level of reduction. Assumed reductions are based on actual reductions in CVP deliveries experienced in the recent drought and the new USBR M&I Reliability Policy adopted in 2017. The actual reductions will vary with the severity of the regional water supply shortage and climatic conditions, and the consideration of contract agreements.

The following describes the availability and reliability of the City's existing and additional planned future water supplies under single dry year conditions:

- The City's contract with the USBR for 10,000 AFY of DMC/CVP water is subject to M&I reliability. During a single dry year, the City estimates to receive 25 percent of the City's historical use. Based on the historical use of 5,930 AFY, the projected supply is 1,483 AFY.

- The City has a total entitlement of 10,000 AFY of DMC/CVP Ag-reliability water. The City anticipates receiving 0 percent of its DMC/CVP Ag-reliability water in a single dry year.

- The City has acquired up to 4,500 AFY of pre-1914 appropriative water rights water from BBID. This supply is restricted with regard to the place of use (Tracy Hills). The City anticipates being able to receive 85 percent of its contractual entitlement in a single dry year (3,825 AFY). As the projected demand is 3,300 AFY in 2045 and is lower than the 3,825 AFY of available supply, the reduction in reliability does not result in a reduction to actual amount of water used. Therefore, the supply in a single dry year is anticipated to be equal to the projected demand within the Tracy Hills area, ranging from 800 AFY in 2025 to 3,300 AFY in 2045.

- The City has a total contractual entitlement of 13,135 AFY of Stanislaus River water provided through the SCWSP. Based on information provided by SSJID, the City expects to receive 76 percent of its SCWSP water supply allocation during 2025, 2030, and 2035 and 56 percent during 2040 and 2045. In addition, the SCWSP water transferred from Escalon is assumed to be unavailable after 2025. As such, the City estimates 9,974 AFY of SCWSP supply in 2025, 8,444 AFY in 2030 and 2035, and 6,177 AFY afterwards.

- During a single dry year, the City anticipates increasing its groundwater production on a short- term basis from the normal year production of 2,500 AFY to 4,500 AFY. The groundwater supply is considered to be 100 percent reliable.

- The City anticipates that 700 AFY of water will be available for use in a single dry year through operation of its ASR well. An additional 300 AFY is estimated to be available by 2040 for a total of 1,000 AFY. This water supply is considered to be 100 percent reliable assuming that the City is consistently able to refill the ASR storage during non-drought years to maintain at least 1,000 af in storage at the beginning of a single dry year.

- The City has acquired 10,500 AFY of storage in Semitropic, which allows the City to withdraw up to 3,500 AFY for three consecutive years. Due to the difficulties experienced by the City in accessing stored water via the DMC on a short timeframe, the City has conservatively assumed that the Semitropic water will not be available in a single dry year.

- The City anticipates that a Recycled Water Distribution Network and Exchange agreement will be executed with the USBR by 2030 to provide additional CVP supplies to the City in exchange for the City discharging a like amount of tertiary-treated recycled water to the DMC. The City assumes that the Recycled Water Distribution Network and Exchange will be implemented as needed to meet future demand conditions and is currently projected to supply an amount ranging from 1,925 AFY in 2030 to 7,500 AFY in 2045. This water supply is considered to be 100 percent reliable.

- The City's recycled water supply is expected to be 100 percent reliable. Based on the projected non-potable demands and assuming that the City makes investments in infrastructure and permitting, the City estimates that they will have access to 1,000 AFY of recycled water supply in 2025, increasing to 6,300 AFY in 2045.

MULTIPLE DRY YEARS

During multiple dry years, the City's surface water supplies (from both the CVP and SCWSP) may be significantly reduced. Thus, in the event of drought, the City will have to depend more heavily on conservation efforts, groundwater, and the proposed future supply projects.

The following describes the availability and reliability of the City's existing and additional planned future water supplies under multiple dry year conditions:

- The City's contract with the USBR for 10,000 AFY of DMC/CVP water is subject to M&I reliability. During multiple dry years, the City estimates that it will receive 40 percent of the City's historical use. Based on the historical use of 5,930 AFY, the projected supply is 2,372 AFY. The City has a total entitlement of 10,000 AFY of DMC/CVP Ag-reliability water. The City anticipates receiving 0 percent of its DMC/CVP Ag-reliability water in multiple dry years.

- The City has acquired up to 4,500 AFY of pre-1914 appropriative water rights water from BBID. This supply is restricted with regard to the place of use (Tracy Hills). The City anticipates being able to receive 85 percent of its contractual entitlement in multiple dry years (3,825 AFY). As the projected demand is 3,300 AFY in 2045 and is lower than the 3,825 AFY of available supply, the reduction in reliability does not result in a reduction to actual amount of water used. Therefore, the supply in multiple dry years is anticipated to be equal to the projected demand within the Tracy Hills area, ranging from 800 AFY in 2025 to 3,300 AFY in 2045.

- The City has a total contractual entitlement of 13,135 AFY of Stanislaus River water provided through the SCWSP. Based on information provided by SSJID, the City's SCWSP

water supply reliability during multiple dry years range from 56 to 100 percent. In addition, the SCWSP water transferred from Escalon is assumed to be unavailable after 2025.

- During multiple dry years, the City anticipates increasing its groundwater production on a short-term basis from the normal year production of 2,500 AFY to 4,500 AFY. The groundwater supply is considered to be 100 percent reliable.

- The City anticipates that 700 af of water will be available for use in multiple dry years through operation of its ASR well. An additional 300 af is estimated to be available by 2040 for a total of 1,000 af. The City is assumed to be unable to refill the ASR storage during multiple dry years. Therefore, the annual ASR supply available is assumed to equal one fifth of the total stored volume (i.e., 140 AFY between 2025 and 2035 and 200 AFY between 2040 and 2045). This water supply is considered to be 100 percent reliable assuming that the City is consistently able to refill the ASR storage in non-drought years to maintain at least 1,000 af in storage at the beginning of a multiple dry year sequence.

- The City has acquired 10,500 AFY of storage in Semitropic, which allows the City to withdraw up to 3,500 AFY for three consecutive years. Due to the difficulties experienced by the City in accessing stored water via the DMC on a short timeframe, the City has conservatively estimated that the 0 percent of the City's storage will be available in the first year of a five-consecutive-year drought, and 100 percent will be available over the following four years. Based on the City's current storage at Semitropic of 6,887 af, the amount available in the second to fifth year of a five- consecutive-year drought is assumed to be 1,722 AFY (6,887 af divided by four). A similar reliability estimate is provided for all dry-year sequences under the assumption that the City is consistently able to re-fill the water bank in non-drought years to maintain at least 7,000 AFY in storage at the beginning of a multiple dry year sequence.

- The City anticipates that a Recycled Water Distribution Network and Exchange agreement will be executed with the USBR by 2030 to provide additional CVP supplies to the City in exchange for the City discharging a like amount of tertiary-treated recycled water to the DMC. The City assumes that the Recycled Water Distribution Network and Exchange will be implemented as needed to meet future demand conditions and is currently projected to supply an amount ranging from 1,925 AFY in 2030 to 7,500 AFY in 2045. This water supply is considered to be 100 percent reliable.

- The City's recycled water supply is expected to be 100 percent reliable. Based on the projected non-potable demands and assuming that the City makes investments in infrastructure and permitting, the City estimates that they will have access to 1,000 AFY of recycled water supply in 2025, increasing to 6,300 AFY in 2045.

REGULATORY SETTING

Safe Drinking Water Act

The federal Safe Drinking Water Act as passed in 1947 and amended in 1986 and 1996 is the Country's primary law regulating drinking water quality and is implemented by the United States Environmental Protection Agency (US EPA). The Safe Drinking Water Act authorizes the US EPA to set national health-based standards for drinking water and requires actions to protect drinking water and its sources. Additionally, it provides for treatment, monitoring, sampling, analytical methods, reporting, and public information requirements. Implementation of the Act, in California, is under the jurisdiction of the California Department of Public Health (CDPH), Division of Drinking Water and Environmental Management. Drinking Water regulations are set forth in the California Code of Regulations (CCR), Titles 7 and 22.

Water Conservation Projects Act

California's requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (Water Code Sections 11950 – 11954).

Consistent with California Water Code Sections 11950 – 11954, the City has implemented various water conservation efforts, as well as Water Shortage Contingency Plan that identifies actions that can be taken to respond to catastrophic interruption of water supply.

Senate Bill (SB) 610

Senate Bill (SB) 610 was adopted in 2001 and reflects the growing awareness of the need to incorporate water supply and demand analysis at the earliest possible stage in the land use planning process. SB 610 amended the statutes of the Urban Water Management Planning Act, as well as the California Water Code Section 10910 et seq. The foundation document for compliance with SB 610 is the Urban Water Management Plan (UWMP), which provides an important source of information for cities and counties as they update their general plans. Likewise, planning documents such as general plans and specific plans form the basis for the demand information contained in an UWMP, as well as a Water Supply Assessment required under SB 610.

Water Code Section 10910 (c)(4) states "If the city or county is required to comply with this part pursuant to subdivision (b), the water assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses."

Water supply planning under SB 610 requires reviewing and identifying adequate available water supplies necessary to meet the demand generated by a project, as well as the cumulative demand for the general region over the next 20 years, under a broad range of water conditions. This information is typically found in the current UWMP for the project area. SB 610 requires the identification of the public water supplier for a project.

In addition, SB 610 requires the preparation of a Water Supply Assessment if a project meets the definition of a "Project" under Water Code Section 10912 (a). The code defines a "Project" as meeting any of the following criteria:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A commercial building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A hotel or motel with more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park, planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of these elements; or
- A project creating the equivalent demand of 500 residential units.

Based on the following assumptions, SB 610 does not apply to the proposed Project:

1. The proposed Project is subject to CEQA and an EIR is required.
2. The proposed Project, an industrial building having less than 650,000 square feet of floor area and occupying less than 40 acres, does not meets the definition of a "Project" as specified in Water Code section 10912(a) paragraph (3) as defined for industrial development.

Nevertheless, in preparation of this EIR, a Hydraulic Evaluation was prepared by West Yost for the proposed project on February 4, 2022 (see Appendix H). The Evaluation includes an estimated water demand for the Project, among other sections.

California Model Water Efficient Landscape Ordinance

The Water Conservation in Landscaping Act was enacted in 2006, requiring the DWR to update the Model Water Efficient Landscape Ordinance (MWELO). In 2009, the Office of Administrative Law (OAL) approved the updated MWELO, which required a retail water supplier or a county to adopt the provisions of the MWELO by January 1, 2010, or enact its own provisions equal to or more restrictive than the MWELO provisions. Because the City of Tracy is a "local agency" under the MWELO, it must require "project applicants" to prepare plans consistent with the requirements of MWELO for review and approval by the City.

The MWELO applies to new construction with a landscape area greater than 2,500 square feet. The MWELO "highly recommends" use of a dedicated landscape meter on landscape areas smaller than 5,000 square feet, and requires weather-based irrigation controllers or soil-moisture based controllers or other self-adjusting irrigation controllers for irrigation scheduling in all irrigation systems. The MWELO provides a methodology to calculate total water use based upon a given

plant factor and irrigation efficiency.[1] Finally, the MWELO requires the landscape design plan to delineate hydrozones (based upon plant factors) and then to assign a unique valve for each hydrozone (low, medium, high water use).

City of Tracy General Plan

The City of Tracy General Plan includes several policies that are relevant to utilities and public services. General Plan policies applicable to the Project are identified below:

POLICIES: PUBLIC FACILITIES ELEMENT

- PF-6.1-P1. The City shall promote water conservation by implementing the Best Management Practices contained in the Urban Water Management Plan.
- PF-6.1-P2. The City shall continue to acquire additional sources of water supplies to meet the City's future demands.
- PF-6.1-P3. To the extent feasible, the City shall use surface water supplies to meet daily water needs and reduce reliance on groundwater supplies.
- PF-6.1-P4. The City shall establish water demand reduction standards for new development and redevelopment to reduce per capita and total demand for water.
- PF-6.2-P1. The City shall maintain water storage, conveyance and treatment infrastructure in good working condition in order to supply domestic water to all users with adequate quantities, flows and pressures.
- PF-6.2-P2. Storage reservoirs should be buried or partially buried depending on local groundwater conditions to allow for the joint use of the site with parks or recreational facilities, unless reservoirs are elevated to provide a gravity flow system, in which case the reservoirs shall be screened by landscaping and/or earthen berms.
- PF-6.3-P1. Structures with plumbing that are located within the City limits shall connect to the City water supply system.
- PF-6.3-P2. New developments shall dedicate land for utility infrastructure such as treatment facilities, tanks, pump stations and wells as needed to support the development of their project.
- PF-6.3-P3. The City shall be responsible for constructing new transmission water lines, as needed to meet future needs. Individual development projects shall be responsible for the construction of all water transmission means.
- PF-6.3-P4. All new water facilities shall be designed to accommodate expected capacity for buildout of areas served by these facilities but may be constructed in phases to reduce initial and overall costs.

[1] In calculating Estimated Total Water Use, the MWELO requires use of at least a 71% irrigation efficiency factor. Assuming 71% irrigation efficiency, the average plant factor must be 0.50. It would be possible to stay within the water budget if the average plant factor were higher than 0.50 by designing a system with an irrigation efficiency higher than 71%. The relationship between a Plant Factor (PF) and Irrigation Efficiency (IE) in the Applied Water formula is: AW=(ETo*PF)/IE.

- PF-6.3-P5. The availability of sufficient, reliable water shall be taken into account when considering the approval of new development.
- PF-6.3-P6. Costs for water service expansion shall be distributed among new water users fairly and equitably.
- PF-6.4-P1. Groundwater supplies should be reserved for emergency use during water treatment shutdowns, short-term shortages of surface water supplies or during droughts.
- PF-6.4-P2. Backup emergency power systems shall be provided at all essential water facilities that rely on electric power.
- PF-6.4-P3. Storage reservoir facilities should be located at naturally high topographic locations to capitalize on gravity flow, whenever possible.
- PF-6.4-P4. Future water systems and facilities shall be designed to minimize the likelihood of damage from vandalism or terrorist activity.
- PF-6.5-P1. The City shall provide recycled water systems, including pipelines, pump stations and storage facilities, to serve primarily City-owned facilities, schools and parks as funding becomes available.
- PF-6.5-P2. Recycled water piping systems ("purple pipe") shall be constructed as appropriate in all new development projects to facilitate the distribution and use of recycled water. The specific location and size of the recycled water systems shall be determined during the development review process.
- PF-6.5-P3. Recycled water shall be used for all public properties and large private open spaces or common areas to the extent feasible.
- PF-654-P4. The City shall plan for recycled water infrastructure in the City's Infrastructure Master Plans and, to the extent feasible, recycled water should be utilized for nonpotable uses, such as landscape irrigation, dust control, industrial uses, cooling water and irrigation of agricultural lands.

Utility Master Plans

The City of Tracy maintains a variety of Master Plan documents that guide the design, development, and maintenance of the utilities within the city limits. These include: *Urban Water Management Plan* (2020), Citywide *Water System Master Plan Update* (2023), Citywide *Storm Drainage Master Plan* (2022) *Wastewater Master Plan* (2023), and *Citywide Public Facilities Master Plan Update* (2023).

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project may have a significant impact on the environment associated with Utilities if it would:

- Require or result in the relocation or construction of new or expanded water treatment facilities, the construction of which could cause significant environmental effects; or
- Have insufficient water supplies available to serve the Project from existing entitlements and resources, or if new or expanded entitlements are needed.

IMPACTS AND MITIGATION MEASURES

Impact 3.11-3: The proposed Project has the potential to require construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (Less than Significant)

The provision of City water service and the construction of onsite water service infrastructure improvements will be required to accommodate the development of the proposed Project. Water distribution will be by an underground distribution system to be installed as per the City of Tracy standards and specifications.

The proposed Project would require extension of offsite water conveyance infrastructure to the Project site for potable water and irrigation water. All offsite water utility improvements will be in or adjacent to existing roadways along the perimeter of the Project site, thereby limiting any potential impact to areas that were not already disturbed. The proposed Project would also require the construction of new onsite water conveyance infrastructure for potable water and irrigation water. All water utility improvements will be within the proposed Development Area or existing developed adjacent rights-of-way, the impacts of which are discussed throughout this EIR. Construction of the onsite potable water infrastructure would not have the potential to induce growth beyond what is proposed because the infrastructure is not oversized to accommodate additional projects or growth.

As described in the Environmental Setting, the City's surface water supplies are treated at the JJWTP. The permitted treatment capacity is 30 million gallons per day, with a potential future expansion to 45 MGD. The proposed Project would increase the amount of water requiring treatment.

A Hydraulic Evaluation was prepared by West Yost for the proposed project on February 4, 2022 (see Appendix H). Potable water service for the proposed project would be served by existing Pressure Zone 2 (Zone 2) pipelines located in West Schulte Road and Hansen Road. As described in the Hydraulic Evaluation, the proposed project would increase the City's overall maximum day and peak hour demands by approximately 33.8 and 57.7 gpm, respectively. Under existing system operations, the proposed project would rely on Zone 2 facilities to provide pumping capacity. Based on the City's available pumping capacity in Zones 1 and 2, there is currently sufficient pumping capacity to adequately serve the proposed project (West Yost, 2022).

Implementation of the proposed Project would have a ***less than significant*** impact relative to this topic.

Impact 3.11-4: The proposed Project has the potential to have insufficient water supplies available to serve the Project from existing entitlements and resources. (Less than Significant)

PROJECTED WATER SUPPLY FOR THE PROPOSED PROJECT

Water demands for the Proposed Project will be served using the City's existing and future portfolio of water supplies.

Proponents of the proposed Project will provide their proportionate share of required funding to the City for the acquisition and delivery of treated potable and recycled water supplies to the proposed Project site in accordance with the latest Master Fee Schedule.

PROJECTED WATER DEMAND FOR THE PROPOSED PROJECT

Water demands were estimated for the Project site using the unit water demand factors adopted in the 2020 Citywide Water System Master Plan update. The projected water demand for the Project is shown in Table 3.11-7. As shown, the total potable water demand for the Project (industrial and irrigation) is estimated at 32.2 AFY. This evaluation assumes potable water will be used to meet all Project water demands. The City has yet to construct infrastructure to deliver recycled water to the Project, so potable water will be used to meet non-potable water demands in the interim. Once the City's recycled water system can supply the Project, potable water demands should decrease.

TABLE 3.11-7: ESTIMATED ANNUAL WATER DEMAND FOR THE PROJECT

LAND USE	*TOTAL AREA, GROSS ACRES[A]*	*POTABLE WATER USE AREA, ACRES[B]*	*LANDSCAPED AREA, ACRES[C]*	*UNIT POTABLE WATER USE FACTORS[D], AF/ACRE/YR*	*ANNUAL POTABLE WATER USE, AFY*
Industrial	20.9	17.8	3.1	1.3 (Industrial)	23.1
				1.9 (Landscaping)	6.0
				UAFW[E]	3.1
				Total Demand	***32.2***

[A] NEW WAREHOUSE BUILDING, 16286 W SCHULTE RD, DEVELOPMENT REVIEW AND REZONING PLANS, DATED JUNE 23, 2021.
[B] CONSISTENT WITH ASSUMPTIONS IN THE 2020 WSMP; 85 PERCENT OF GROSS ACRES ARE ASSUMED TO USE POTABLE WATER.
[C] CONSISTENT WITH ASSUMPTIONS IN THE 2020 WSMP; 15 PERCENT OF GROSS ACRES ARE ASSUMED TO BE LANDSCAPED.
[D] BASED ON 2020 WSMP
[E] UNACCOUNTED-FOR WATER (UAFW) IS EQUAL TO 9.6 PERCENT.
SOURCE: HYDRAULIC EVALUATION OF SCHULTE WAREHOUSE (WEST YOST ASSOCIATES, 2022), TABLE 1.

According to the Hydraulic Evaluation, the average day demand (ADD) for the Project is approximately 19.9 gallons per minute (gpm). Maximum day demands (MDD) and peak hour demands (PHD) were calculated using the City's peaking factors (adopted in the 2020 WSMP) of 1.7 and 2.9 times the ADD, respectively, resulting in an MDD of about 33.8 gpm and a PHD of about 57.7 gpm.

It is anticipated that the proposed Project, if approved by the City, would be served from the City's existing and future portfolio of water supplies. The inclusion of existing and planned future water

supplies is specifically allowed by Water Code Section 16031(b). The proposed Project site is planned for industrial uses by the City's General Plan, which is utilized to generate citywide water demands as part of the 2020 UWMP.

It is noted that, during a single dry year or a multiple dry year period, the City must depend more heavily on conservation efforts, groundwater, and the proposed future supply projects to overcome the gap between supply and demand. As described in the City's 2020 UWMP, these findings are primarily due to projected reduced reliability of the City's CVP supplies and SSJID supplies in dry years. To close the gap between supply and demand during dry years, the City will need to implement its Water Shortage Contingency Plan to reduce water demands. However, the City has shown that it can achieve its water conservation goals. During the 2012-2016 statewide drought, the City exceeded its water conservation goals of 25 percent. Further, the City must fully implement its proposed future water supply projects, including the Recycled Water Distribution Network and Exchange Program and expansion of the ASR Program. Investments in wet year water supplies will also be needed to refill storage in Semitropic and expand the City's ASR program. Delays in implementing the proposed future water supply projects could result in greater water supply shortages and the need for additional water conservation to meet demands. Significant water supply shortfalls are currently projected in future single and multiple dry years. These projections include numerous sources of uncertainty as summarized below:

- The Bay-Delta Plan Amendment implementation is under negotiation. The SSJID and others are continuing negotiations with the SWRCB on implementation of the Bay-Delta Plan Amendment for water supply cutbacks, particularly during droughts. This is a dynamic situation and the projected drought cutback allocations may need to be revised before the next (i.e., 2025) UWMP depending on the outcome of ongoing negotiations. The City has considered a conservative estimate of the potential impacts of the Bay-Delta Plan Amendment on the SCWSP (and therefore the City), which is provided in Appendix G of its 2020 UWMP.

- The supply yield of the City's development of additional ASR and recycled water supplies are accounted for in current supply projections. However, implementation of these projects will require significant investment by the City. Similarly, investments in wet years supplies will be needed to refill storage in Semitropic and expand the City's ASR program.

- The City continues to work closely with the USBR and SSJID on their rationing policies to ensure that M&I needs can be met. Rationing policies may potentially be revised.

- The City's projected water demands are subject to change in the future based on water conservation policies and regulations for current and future development, and the pace and extent of development.

- Frequency and duration of cutbacks and, therefore, the shortfalls are also uncertain. In addition to the supply volumes, the above listed uncertainties would also impact the projected frequency and duration of shortfalls.

Recycled water is planned to augment non-potable demands that would otherwise be supplied with potable water. Buildout potable water demands could be less than the current projections and therefore the resultant supply shortage will likely be smaller.

The City continues to evaluate the expansion of its existing supply and to obtain new supply sources, including the ASR Program and Recycled Water Distribution Network and Exchange Program. Other potential supply options, such as direct potable reuse of recycled water, are also being considered.

The City has an active water conservation program and continues to implement the demand management measures described in Section 9 of its 2020 UWMP. Further, in response to the anticipated future shortfalls, the City has developed a robust Water Shortage Contingency Plan (WSCP) that systematically identifies ways in which the City can reduce water demands. The WSCP is included in Section 8 of its 2020 UWMP.

The City is currently exploring other policy-based water efficiency tools that other supply-constrained agencies across California have implemented. These policy-based tools are often bundled together and referred to as Water Demand Offset (WDO) or Water Neutrality policies. Through these policies, project developers are generally required to offset the new demand anticipated by the development through some combination of demand mitigation options, such as:

- On-site retrofits. Project developer with existing property reduces total projected water demand by retrofitting existing property with efficient water fixtures. If projected water demand is reduced below baseline for existing property, no off-site WDOs are required. If not, offsite WDOs are required.

- Off-site retrofits. Project developer coordinates and pays for installation of water efficient fixtures at other properties or converts existing irrigation systems to recycled water for other off- site properties, typically those owned by other entities.

- On-site reuse. Larger scale developments are required to implement on-site reuse of water, including rainwater, greywater, stormwater, and blackwater, as has recently been implemented by the cities of San Francisco and Menlo Park.

- Supply augmentation. Project developer secures its own water supply to serve the development, either through direct provision of water to the development or through an agreement to transfer rights to the water supplier.

- WDO fees. Project developer pays fees to implementing entity based on the amount of water offset, and the agency uses the fees to fund water conservation programs. Such conservation programs could include system water loss mitigation projects (e.g., capital improvement, Advanced Metering Infrastructure [AMI] meters, etc.), purchase of water efficient equipment (e.g., NO-DES hydrant flushing machine to recycle water used to flush mains), and recycled water system infrastructure, as well as fixture rebate or retrofit and education-based conservation programs.

Such policies could be designed as a "net neutral" policy wherein the new development is required to offset all new demands associated with the development project and minimize the overall supply reliability impacts for the existing customers.

The City's existing and additional planned future water supplies are sufficient to meet the City's existing water demands, including those future water demands associated with the proposed Project, to the year 2045 under all hydrologic conditions (including Normal Years, Single Dry Years, and Multiple Dry Years), and through buildout of the General Plan with full development of the proposed Recycled Water Exchange Program. However, during a single dry year or a multiple dry year period, the City may experience a water supply shortfall. To close the gap between supply and demand, the City will need to implement its Water Shortage Contingency Plan to reduce water demands and rely more heavily on groundwater and proposed future supply projects.

Water demand within the City's water service area is not expected to exceed the City's supplies at Buildout under normal hydrologic conditions if the City is able to fully implement its future planned projects, which include Aquifer Storage and Recovery Program Expansion, Recycled Water Distribution Network and Exchange Program for additional Central Valley Project water supplies, and recycled water distribution for non-potable use. During a single dry year or a multiple dry year period, the City must depend more heavily on water conservation efforts, groundwater, and the proposed future supply projects to overcome the gap between supply and demand. Investments in wet year water supplies will also be needed to refill storage in Semitropic and expand the City's ASR program. Delays in implementing the proposed future water supply projects could result in greater water supply shortages and the need for additional water conservation to meet demands.

The dry year shortfalls are based on water supply and demand projections with numerous uncertainties and the situation is dynamic as discussed in 2020 UWMP. The City continues to work on strategies and actions to address the projected water supply shortfall. The City's strategies and actions include the implementation of demand management measures as part of its water conservation program, consideration of net neutral policies to improve water use efficiency community-wide, and implementation of the future water supply projects.

CONCLUSION

Overall, the City of Tracy currently has sufficient storage capacity in Zones 1 and 2 (existing system operations) and Zone 3 (future alternative system operations) to meet the needs of the proposed Project. The proposed Project would not result in insufficient water supplies available to serve the proposed Project from existing entitlements and resources. Therefore, the proposed Project would result in a ***less than significant*** impact to water supplies.

3.11.3 STORM WATER

ENVIRONMENTAL SETTING

Existing City Facilities

The following information was provided in the City of Tracy Citywide Storm Drainage Master Plan (2022). The City of Tracy provides and maintains a system of storm drains, detention basins, and pumping facilities as well as monitoring and control of the operations of the storm drain system. Additionally, the City enforces storm drain regulations established by the US EPA and the State of California.

In general, new development projects will be required to provide site-specific or project-specific storm drainage solutions that are consistent with the overall infrastructure approach presented in the Citywide Storm Drainage Master Plan (CSDMP). The City may allow for a reasonable degree of flexibility to be incorporated into specific design approaches as a part of achieving effective solutions, including adjustments to alignments of linear storm drainage conveyance facilities and adjustments to configurations of detention facilities. Modifications and refinement to the storm drainage facilities master plan may be considered by the City during the Specific Plan and development review process for new development. However, any significant modifications to the elements of the CSDMP must be approved by the City and will require that a formal "Supplement" be adopted by the City Council.

The City's Public Works Department manages Tracy's storm drainage system. Stormwater drains through open channels, storm drains, and closed conduits that are owned, operated, and maintained by the City and the West Side Irrigation District. The system includes three outfalls: the West Side Irrigation District (WSID) Main Drain; the Westside Channel Outfall System; and the Sugar Cut Outfall. These outfalls carry and discharge storm runoff into the Old River and utilize pump stations to move water over grades; however, the majority of the system is gravity operated.

Future Storm Drain Master Plan Improvements

The City of Tracy completed the Citywide Storm Drainage Master Plan Update in September 2022. The Master Plan identified new storm drainage infrastructure needed to serve new development included in the City's General Plan as well as to correct existing deficiencies. The City's General Plan includes future service areas within its sphere of influence.

The City comprises a number of watersheds. The Project site lies within the Lammers Watershed which includes the WSID upper main channel, several large diameter pipes, and a number of detention basins.

REGULATORY SETTING

Clean Water Act

The Clean Water Act (CWA) regulates the water quality of all discharges into waters of the United States including wetlands, perennial and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water quality certification requirements for "any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters." Section 404, Title 33, Section 1344 of the CWA in part authorizes the U.S. Army Corps of Engineers to:

- Set requirements and standards pertaining to such discharges: subparagraph (e); Issue permits "for the discharge of dredged or fill material into the navigable waters at specified disposal sites": subparagraph (a);
- Specify the disposal sites for such permits: subparagraph (b);
- Deny or restrict the use of specified disposal sites if "the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies and fishery areas": subparagraph (c);
- Specify type of and conditions for non-prohibited discharges: subparagraph (f);
- Provide for individual State or interstate compact administration of general permit programs: subparagraphs (g), (h), and (j);
- Withdraw approval of such State or interstate permit programs: subparagraph (i);
- Ensure public availability of permits and permit applications: subparagraph (o);
- Exempt certain Federal or State projects from regulation under this Section: subparagraph (r); and,
- Determine conditions and penalties for violation of permit conditions or limitations: subparagraph (s).
- Section 401 certification is required prior to final issuance of Section 404 permits from the U.S. Army Corps of Engineers.

The SWRCB and RWQCBs enforce State of California statutes that are equivalent to or more stringent than the Federal statutes. RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters including the San Joaquin River, and other waters in the Tracy Planning Area. In the Tracy Planning Area the RWQCB is responsible for protecting surface and groundwater from both point and non-point sources of pollution. Water quality objectives for all of the water bodies within the Tracy Planning Area were established by the RWQCB and are listed in its Basin Plan.

National Pollutant Discharge Elimination System (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges of pollutants to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, the ocean, dry stream beds, wetlands, and storm

sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.).

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the Environmental Protection Agency Regional Administrator. The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti- degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore to be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the SWRCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB has issued general permits for stormwater runoff from industrial and construction sites statewide. Stormwater discharges from industrial and construction activities in the Central Valley Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

A Phase II Small Municipal Separate Storm Sewer (MS4) General Permit was adopted by the SWRCB on December 8, 2017 and became effective February 1, 2018. The Permit has numerous components and the City is required to implement these components in stages over the five-year period of the Permit. The Cities of Lathrop, Lodi, Manteca, Patterson, Tracy and San Joaquin County (Partners) collaborated to develop a Multi-Agency Post-Construction Standards Manual to meet the MS4 permit requirement. The SWRCB adopted Order No. 2017-0113-DWQ in 2018, which requires that agencies regulate post-construction development through a number of different program elements. In response to this order, five cities, including Tracy, and San Joaquin County collaborated together to develop a "Multi Agency Post-Construction Stormwater Standards Manual."

Federal Emergency Management Agency

San Joaquin County is a participant in the National Flood Insurance Program (NFIP), a federal program administered by FEMA. Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the Department of Water Resources (DWR) to insure the proper implementation of FEMA floodplain management regulations.

Department of Water Resources

DWR's major responsibilities include preparing and updating the California Water Plan to guide development and management of the State's water resources, planning, designing, constructing, operating, and maintaining the State Water Resources Development System, protecting and restoring the Sacramento-San Joaquin Delta, regulating dams, providing flood protection, assisting in emergency management to safeguard life and property, educating the public, and serving local water needs by providing technical assistance. In addition, the DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and surface water; facilitates voluntary water transfers; and, when needed, operates a State drought water bank.

California Water Code

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

> (a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:
>
> > (1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.
> >
> > (2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.

(3) A person operating, or proposing to construct, an injection well.

(b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

(c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

Water Quality Control Plan for the Central Valley Region

The Water Quality Control Plan for the Central Valley Region (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

200-Year Flood Protection in Central Valley

Both State policy and recently enacted State legislation (Senate Bill 5) call for 200-year (0.5% annual chance) flood protection to be the minimum level of protection for urban and urbanizing areas in the Central Valley. Senate Bill 5 (SB5) requires that the 200-year protection be consistent with criteria used or developed by the Department of Water Resources. SB 5 requires all urban and urbanizing areas in the Sacramento and San Joaquin Valleys to achieve 200-year flood protection in order to approve development. The new law restricts approval of development after 2015 if "adequate progress" towards achieving this standard is not met. Urban and urbanizing areas protected by State-Federal project levees cannot use "adequate progress" as a condition to approve development after 2025.

City of Tracy General Plan

The City of Tracy General Plan includes several policies that are relevant to stormwater and drainage. General Plan policies applicable to the Project are identified below:

POLICIES

- PF-6.1-P1. The City shall promote water conservation by implementing the Best Management Practices contained in the Urban Water Management Plan.
- PF-6.1-P2. The City shall continue to acquire additional sources of water supplies to meet the City's future demands.
- PF-6.1-P3. The extent feasible, the City shall use surface water supplies to meet daily water needs and reduce reliance on groundwater supplies.
- PF-6.1-P4. The City shall establish water demand reduction standards for new development and redevelopment to reduce per capita and total demand for water.
- PF-6.2-P1. The City shall maintain water storage, conveyance and treatment infrastructure in good working condition in order to supply domestic water to all users with adequate quantities, flows and pressures.
- PF-6.2-P2. Storage reservoirs should be buried or partially buried depending on local groundwater conditions to allow for joint use of the site with parks or recreational facilities, unless reservoirs are elevated to provide a gravity flow system, in which case the reservoirs shall be screened by landscaping and/or earthen berms.
- PF-6.3-P1. Structures with plumbing that are located within the City limits shall connect to the City water supply system.
- PF-6.3-P2. New developments shall dedicate land for utility infrastructure such as treatment facilities, tanks, pump stations and wells as needed to support the development of their project.
- PF-6.3-P3. The City shall be responsible for constructing new transmission water lines, as needed to meet future needs. Individual development projects shall be responsible for the construction of all water transmission means.
- PF-6.3-P4. All new water facilities shall be designed to accommodate expected capacity for buildout of areas served by these facilities but may be constructed in phases to reduce initial and overall costs.
- PF-6.3-P5. The availability of sufficient, reliable water shall be taken into account when considering the approval of new development.
- PF-6.3-P6. Costs for water service expansion shall be distributed among new water users fairly and equitably.
- PF-6.4-P1. Groundwater supplies should be reserved for emergency use during water treatment shutdowns, short-term shortages of surface water supplies or during droughts.
- PF-6.4-P2: Backup emergency power systems shall be provided at all essential water facilities that rely on electric power.
- PF-6.4-P3. Storage reservoir facilities should be located at naturally high topographic locations to capitalize on gravity flow, whenever possible.
- PF-6.4-P4. Future water systems and facilities shall be designed to minimize the likelihood of damage from vandalism or terrorist activity.
- PF-6.5-P1. The City shall maintain wastewater conveyance, treatment and disposal infrastructure in good working condition in order to supply municipal sewer service to the City's residents and businesses.

- PF-6.5-P2. The City shall expand the existing wastewater treatment plant to the extent possible or pursue a single new west side facility instead of building new facilities at multiple locations to meet future needs.
- PF-6.5-P3. New habitable structures located within the City limits shall connect to the public wastewater collection system.
- PF-7.1-P1. Areas used for the land application of treated effluent may also be used for agriculture.
- PF-7.2-P1. Wastewater collection and treatment facilities shall be designed to serve expected buildout of the areas served by these facilities but constructed in phases to reduce initial and overall costs.
- PF-7.2-P2. The City shall construct new wastewater trunk lines as needed. Individual development projects shall be responsible for construction of all collection lines other than trunk lines.
- PF-7.2-P3. The approval of new development shall be conditioned on the availability of sufficient capacity in the wastewater collection and treatment system to serve the project.
- PF-7.2-P4. “Package” treatment plants shall not be allowed in the City.
- PF-7.2-P5: New development shall fully fund the cost of new wastewater treatment and disposal facilities.
- PF-7.2-P6. Prior to any development approvals within an Urban Reserve, the City shall complete new wastewater master planning and wastewater and disposal studies, particularly for the west side of the city. These studies are to be funded by proponents of new development and must show how adequate wastewater treatment will be provided to the Urban Reserve in question.
- PF-7.3-P1. New wastewater treatment plants should be located to allow for distribution of recycled water to application areas by gravity flow where feasible.
- PF-7.3-P2. The City shall integrate public facilities and wastewater reclamation sites with agricultural and open space preservation programs where feasible.
- PF-7.3-P3. Biosolid disposal shall be managed so as to minimize impacts to the environment and public health.
- PF-7.3-P4. The City shall establish wastewater treatment demand reduction standards for new development and redevelopment to reduce per capita and total demand for wastewater treatment.
- PF-8.1-P1. Stormwater infrastructure shall be maintained in good condition.
- PF-8.1-P2. Stormwater infrastructure shall minimize local flooding by attaining capacity that conforms with the Storm Drainage Master Plan and City Design Standards.
- PF-8.1-P3. New permanent stormwater infrastructure shall be designed to serve dual purposes to the extent possible. This includes the following: - Drainage facilities integrated into recreation corridors with bike paths, sidewalks and landscaping. - Drainage channels integrated with transportation and environmental corridors. - Storm water detention basins shall incorporate active and passive recreation areas where feasible. These areas shall not count towards parks dedication requirements.

- PF-8.1-P4. When temporary retention or detention facilities are no longer needed after an outfall system is constructed, the sites shall be backfilled and disconnected from the storm drainage system.
- PF-8.1-P5. The City shall ensure a fair and equitable distribution of costs for stormwater system upgrades, expansion and maintenance.
- PF-8.1-P6. Design of storm drainage facilities shall be consistent with State and federal requirements, including NPDES requirements.
- PF-8.1-P7. Planning for stormwater facilities should consider possible future retrofitting needs associated with changing regulations pertaining to storm water quality, including NPDES requirements.
- PF-8.2-P1. To the extent feasible, new development projects shall incorporate methods of reducing storm runoff within the project to reduce the requirements for downstream storm drainage infrastructure and improve stormwater quality.
- PF-8.2-P2. New storm drainage facilities shall meet adopted City standards, including the standards and policies contained in the Storm Water Management Plan, the Storm Drainage Master Plan and the Parkways Design Manual.
- PF-8.2-P3. New development projects shall only be approved if necessary, stormwater infrastructure is planned and is in compliance with environmental regulations.
- PF-8.2-P4. If sufficient downstream stormwater infrastructure has not yet been constructed, new development projects shall be required to implement temporary on-site retention facilities in conformance with City standards.

City of Tracy Municipal Code

The following chapters of the Tracy Municipal Code relate to stormwater and drainage.

CHAPTER 9.52 FLOODPLAIN REGULATIONS

This chapter addresses floodplain regulations and requirements for new development and construction within Flood Hazard Areas delineated by Flood Insurance Rate Maps published by FEMA.

CHAPTER 11.28 WATER MANAGEMENT

This chapter addresses the prevention of waste and unreasonable water use and to promote water conservation as an effective means to manage the local water supply.

CHAPTER 11.32 STORM AND SURFACE WATER MANAGEMENT ENTERPRISE AND UTILITY

This chapter addresses the need to provide effective management of the City's storm drainage facilities.

CHAPTER 11.34 STORMWATER MANAGEMENT AND DISCHARGE CONTROL

This chapter addresses City requirements for stormwater management and discharge control, including controlling non-stormwater discharges to the stormwater conveyance system,

eliminating discharges to the stormwater conveyance system from spills, dumping or disposal of materials other than stormwater, reducing pollutants in urban stormwater discharges to the maximum extent practicable.

CHAPTER 11.30 RECYCLED AND NON-POTABLE WATER

This chapter addresses the use of recycled water within the city for non-potable uses. Specifically, this chapter requires new developments in the city to include recycled water distribution systems.

SECTION 11.34.210 DESIGN STANDARDS

According to section 11.34.210 Design Standards of the City's Municipal Code, all construction of public stormwater conveyance system infrastructure shall conform to design criteria, standard plans and specifications and the inspection and testing procedures set forth in the applicable City public improvement design standards.

Utility Master Plans

The City of Tracy maintains a variety of Master Plan documents that guide the design, development, and maintenance of the utilities within the city limits. These include: *Urban Water Management Plan* (2020), Citywide *Water System Master Plan Update* (2023), Citywide *Storm Drainage Master Plan* (2022) *Wastewater Master Plan* (2023), and *Citywide Public Facilities Master Plan Update* (2023).

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project may have a significant impact on the environment associated with Utilities if it would:

1. Require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction of which could cause significant environmental effects.

IMPACTS AND MITIGATION MEASURES

Impact 3.11-5: The proposed Project has the potential to require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. (Less than Significant with Mitigation)

Flooding events can result in damage to structures, injury or loss of human and animal life, exposure of waterborne diseases, and damage to infrastructure. In addition, standing floodwater can destroy agricultural crops, undermine infrastructure and structural foundations, and contaminate groundwater. The Project site is not located within the 100 or 200-year floodplain as delineated on the most recent flood plain maps for Tracy.

Because the proposed project increases impervious surface area from an existing undeveloped and predominately previous site, the Project site could increase runoff significantly, Project impacts to stormwater are considered potentially significant. Onsite storm drainage would be installed to

serve the proposed Project. Development of the proposed Project would include construction of a new storm drainage system, including a drainage collection system, and detention basins. Stormwater treatment/detention basins and stormwater bioretention treatment planters would be located throughout the project site, mainly in the proposed landscaped areas and along West Schulte Road. Stormwater runoff from each of the drainage areas would be routed to a series of on-site stormwater bioretention treatment planters and treatment/detention basins. Best management practices (BMPs) will be applied to the proposed development to limit the concentrations of constituents in any site runoff to acceptable levels. Stormwater flows from the project site would be directed to the proposed stormwater treatment basins, treatment planters, and bioretention areas by a new stormwater conveyance system on the project site. Stormwater runoff would not be allowed to discharge directly to the existing storm drains in West Schulte Road without first discharging to the bioretention areas. The landscaping plan includes stormwater treatment plantings in the treatment/detention basins. Additionally, erosion and sediment control measures would be implemented during construction.

The storm water drainage detention basins will be constructed to meet the City of Tracy Standards. Discharge from the basins will be conveyed through controlled flow pumping facilities to existing City of Tracy and main storm drain laterals. It is anticipated that runoff from the Project would be diverted to the proposed detention basin identified as LW-11 in the City's Storm Drain Master Plan, located on City land east of the Project site..

Pursuant to Section 11.34.210 Design Standards of the City's Municipal Code, installation of the Project's storm drain system would be required to conform to the design criteria, standard plans and specifications and the inspection and testing procedures set forth in the applicable City public improvement design standards. Thus, the proposed storm drainage collection and detention system will be subject to the SWRCB and City of Tracy regulations, including: Tracy Municipal Code, Citywide Storm Drain Master Plan Update, 2022; Phase II, NPDES Permit Requirements; NPDES-MS4 Permit Requirements; and LID Guidelines.

The following mitigation measure requires the Project applicant to install a drainage system that meets this performance standard and, prior to issuance of grading permits, provide a drainage plan and report to the City of Tracy for review and approval. The proposed Project would participate in the implementation of the Citywide Storm Drainage Master Plan through the payment of fees and/or the construction of Master Plan facilities with corresponding credits. With the implementation of the following mitigation measure, drainage impacts would be reduced to ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.11-1*: Prior to the issuance of a building or grading permit, the Project applicant shall submit a drainage plan to the City of Tracy for review and approval. The plan shall include an engineered storm drainage plan that demonstrates attainment of pre-Project runoff requirements prior to release at the outlet canal and describes the volume reduction measures and treatment controls used to reach attainment consistent with the Citywide Storm Drainage Master Plan.*

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The California Environmental Quality Act (CEQA) requires an Environmental Impact Report (EIR) to evaluate a project's effects in relationship to broader changes occurring, or that are foreseeable to occur, in the surrounding environment. Accordingly, this chapter presents a discussion of CEQA-mandated analysis for cumulative impacts, significant irreversible effects, significant and unavoidable impacts, and growth-inducing impacts associated with the proposed Project.

4.1 CUMULATIVE CONTEXT IMPACT ANALYSIS

INTRODUCTION

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed Project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

> *…the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

1) Either:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or,

(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

The cumulative context uses growth projections listed in various planning documents and Department of Finance statistics. Table 4.0-1 shows growth projections.

TABLE 4.0-1: GROWTH PROJECTIONS

CALENDAR YEAR	*ESTIMATED POPULATION (TRACY)*	*ESTIMATED POPULATION (SAN JOAQUIN COUNTY)*	*ESTIMATED POPULATION (CALIFORNIA)*
2025	102,236	829,426	42,373,301
2030	109,492	883,484	44,085,600
2035	118,130	947,835	45,747,645
2040	127,933	1,020,862	47,233,240

SOURCES: CALIFORNIA DEPARTMENT OF FINANCE (2020), SJCOG 2018 RTP/SCS (2018).

In addition to those cumulative growth projections listed above, this EIR uses a list of past, present, and probable future projects within the City of Tracy to determine cumulative growth in the area. The list of past, present, and probable future projects used for this cumulative analysis is restricted to those projects that are planned to occur within the City of Tracy. The approved and/or pending projects are listed in the City's Project Pipelines Reports (August 2022)[1].

CUMULATIVE EFFECTS OF THE PROJECT

The geographic context is identified under each cumulative impact analysis. The geographic context varies among topical impact areas because the geographic area that the impact may affect is different. For example, noise impacts generally only impact the local surrounding area because noise travels a relatively short distance while air quality impacts affect the whole air basin as wind currents control air flow and are not generally affected by natural or manmade barriers which would affect noise. Cumulative Project impacts are addressed and summarized below.

Method of Analysis

Although the environmental effects of an individual project may not be significant when that project is considered separately, the combined effects of several projects may be significant when considered collectively. CEQA Guidelines Section 15130 requires a reasonable analysis of a project's cumulative impacts, which are defined as "two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts." The cumulative impact that results from several closely related projects is: the change in the environment which results from the incremental impact of the project when added to other closely

[1] Available at: https://www.cityoftracy.org/our-city/departments/planning

related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines 15355[b]). Cumulative impact analysis may be less detailed than the analysis of the project's individual effects (CEQA Guidelines 15130[b]).

There are two approaches to identifying cumulative projects and the associated impacts. The list approach identifies individual projects known to be occurring or proposed in the surrounding area in order to identify potential cumulative impacts. The projection approach uses a summary of projections in adopted General Plans or related planning documents to identify potential cumulative impacts. As noted previously, this EIR uses a list of past, present, and probable future projects within the City of Tracy to determine cumulative growth in the area. The list of past, present, and probable future projects used for this cumulative analysis is restricted to those projects that are planned to occur within the City of Tracy. The approved and/or pending projects are listed in the City's Project Pipelines Reports (March 2024).[2]

Project Assumptions

The proposed Project's contribution to environmental impacts under cumulative conditions is based on development of the Project site consistent with the development assumptions identified in Chapter 2.0, Project Description. See Chapter 2.0, Project Description, for a complete description of the proposed Project.

Cumulative Impacts

Some cumulative impacts for issue areas are not quantifiable and are therefore discussed in general, qualitative terms as they pertain to development patterns in the surrounding region. Exceptions to this are traffic, utilities, noise and air quality (the latter two of which are associated with traffic volumes and operations associated with the proposed land uses), which may be quantified by estimating future traffic patterns, pollutant emitters, etc. and determining the combined effects that may result. In consideration of the cumulative scenario described above, the proposed Project may result in the following cumulative impacts.

AESTHETICS AND VISUAL RESOURCES

The geographic context for aesthetics is the City of Tracy and surrounding areas of San Joaquin County.

Impact 4.1: Cumulative Damage to Scenic Resources within a State Scenic Highway (Less than Significant)

As described in Section 3.1, Aesthetics and Visual Resources, only one highway section in San Joaquin County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of I-580 from Interstate 5 to Interstate 205. This Designated Scenic Highway is located approximately 0.75 miles southwest of the Project site. The views from I-580 to the Project site are limited because of small hills, commercial buildings along I-580, and high speeds of travel. However,

[2] Available at: https://www.cityoftracy.org/our-city/departments/planning

new development proposed by the Project in the viewsheds would have the potential to adversely affect a State-designated route.

Cumulative development in the city would not impact a State Scenic Highway. As such, impacts relative to scenic resources would be ***less than significant***.

Impact 4.2: Cumulative Degradation of the Existing Visual Character of the Region (Significant and Unavoidable and Cumulatively Considerable)

Project implementation would introduce an industrial warehouse use, as well as supporting infrastructure, into an area that is currently developed with one residence and associated support structures. The proposed Project would include visual components that would assist in enhancing the appearance of the site following site development. Landscaping improvements, such as new street trees and other vegetation landscaping, would be provided throughout the Project site, including along the site boundary. The landscape design and plant palette would complement the existing street and building/development landscape character. A variety of types and sizes of trees and shrubs will be provided on site to the north, west, and south of the proposed warehouse building and parking lot. Additionally, the proposed Project would include landscaping buffer zones, pursuant to General Plan Policy OSC-2.2-P1, at the interface of urban development and farmland in order to minimize conflicts between the uses and provide a visual shield. Nevertheless, impacts related to degradation of the visual character of the site would be significant and unavoidable.

There would be two significant unavoidable visual quality impacts under the proposed General Plan for the Tracy Planning Area and under cumulative conditions in the region as a whole. Despite policies in the General Plan to preserve open space and agricultural lands and community character, policies in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) and the City's Agricultural Mitigation Fee Ordinance, development occurring within the City and its Sphere of Influence would result in a change in visual character from an agricultural appearance to a more urban appearance.

Under cumulative conditions, buildout of the General Plans for Tracy and the surrounding jurisdictions could result in changes to the visual character and quality of the City of Tracy through development of undeveloped areas and/or changes to the character of existing communities. Development of the proposed Project, in addition to other future projects in the area, would change the existing visual and scenic qualities of the City. It is noted that although the Project site is undeveloped and was previously used for agricultural uses, the General Plan designates the site for Industrial uses. Additionally, the surrounding areas to the north, east, south, and west are designated for urban uses (including mainly Industrial uses) by the General Plan. As such, the General Plan and associated EIR anticipated development of the Project area for similar uses as proposed by the Project.

Development within the City would be required to be consistent with the General Plan policies and City Municipal Code, both of which cover aesthetics and visual characteristics. Further, the Municipal Code contains development standards that address the visual character of a development project, such as building height, massing, setbacks, lighting, and landscaping. Although implementation of these requirements would reduce the impacts associated with development, the impacts would

remain significant and unavoidable. As such, this is a ***significant and unavoidable*** impact, and the Project's contribution to this impact would be ***cumulatively considerable***.

Impact 4.3: Cumulative Impact on Light and Glare (Less than Significant)

Implementation of the proposed Project would introduce new sources of light and glare into the vacant Project site. Proposed Project lighting includes internal street lighting and exterior lighting around the eastern and southern walls of the warehouse throughout the Project site. Employee vehicle parking lot and truck and trailer parking areas would be illuminated with standard downward pointing lights affixed to a 25-foot light pole. Further, the site fixtures would be controlled by a lighting control panel with an astronomical time clock. The lighting fixtures would be designed to provide even light distribution and to reduce any light spillover onto neighboring rural properties. However, the LED lamps provide a higher level of perceived brightness with less energy than other lamps.

The City of Tracy Standard Plan #146 establishes street light standards, and requirements for light illumination to assist in reducing light impacts. Additionally, City of Tracy Standard Plan #141 establishes standards for lighting parking areas, requiring that illuminated parking facilities provide a minimum 1-foot candle. Further, Section 10.08.400 of the Municipal Code specifies that the site plan and architectural review package includes an exterior lighting standards and devices review Adherence to City of Tracy Standard Plan #140 and Section 10.08.400 of the Municipal Code of the City Municipal Code would ensure that excessively reflective building materials are not used, and that the proposed Project would not result in significant impacts related to daytime glare.

Future projects within Tracy, Lathrop, and San Joaquin County would be subject to the light and glare standards established by the individual jurisdictions. These regulations are designed to minimize potential light and glare impacts of new development. Implementation of these regulations would ensure that future projects minimize their potential light and glare impacts resulting in a ***less than significant*** cumulative impact relative to this environmental topic.

AGRICULTURAL RESOURCES

The geographic context for agriculture and forest resources is all of San Joaquin County. According to the Department of Conservation, the County had 784,800 acres of crop land in 2018, the majority of which is identified as Prime Farmland. The remaining agricultural land is comprised of Farmland of Statewide Importance (11 percent), Unique Farmland (11 percent), Farmland of Local Importance (9 percent), and Grazing Land (18 percent).

Impact 4.4: Cumulative Impact on Agricultural Resources (Less than Significant)

As described in Section 3.2, Agricultural Resources, development of the proposed Project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Additionally, the proposed conversion of the Project site from agricultural to industrial uses is consistent with the City's overall planning vision, as the Tracy General Plan designates the Project site as Industrial, and therefore assumes the site would be developed with Industrial uses.

Further, the Project site is not under a Williamson Act contract. The Project site is zoned General Agriculture (AG-40) by San Joaquin County. The AG-40 zoning designation is established to preserve agricultural lands for the continuation of commercial agriculture enterprises. The San Joaquin County LAFCo would require the Project site to be pre-zoned by the City of Tracy in conjunction with the proposed annexation. The City's pre-zoning would include the following zoning designation: Light Industrial (M-1). The pre-zoning would go into effect upon annexation into the City of Tracy.

Tracy Municipal Code Chapter 13.28 establishes the City's Agricultural Mitigation Fee Program, which authorizes the collection of development impact fees to offset costs associated with the loss of productive agricultural lands converted for private urban uses. In addition to the City's agricultural mitigation fee program, the SJMSCP requires development to pay fees on a per-acre basis for impacts to agricultural lands that function as habitat for biological resources. SJCOG will then use these funds to purchase the conservation easements on agricultural and habitat lands in the Project vicinity. The compensation results in the purchase of conservation easements that are placed over agricultural land. As such, the Project fees paid to SJCOG as administrator of the SJMSCP will result in the preservation of agricultural lands in perpetuity.

Future projects within Tracy, Lathrop, and San Joaquin County would be subject to the right to farm ordinances and agriculture-related procedures established by the individual jurisdictions. These regulations are designed to minimize impacts of new development on agricultural resources. Implementation of the Project would result in a ***less than significant*** cumulative impact relative to this environmental topic.

AIR QUALITY

The geographic context for air quality impacts is the San Joaquin Valley Air Basin (SJVAB), which consists of eight counties, stretching from Kern County in the south to San Joaquin County in the north. The SJVAB is bounded by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south.

Impact 4.5: Cumulative Impact on the Region's Air Quality (Less than Significant)

Under buildout conditions in the San Joaquin County, the SJVAB would continue to experience increases in criteria pollutants and efforts to improve air quality throughout the basin would be hindered. As described in Section 3.3, San Joaquin County has a state designation of Nonattainment for ozone, PM_{10} and $PM_{2.5}$. Table 3.3-2 in Section 3.3 presents the State and Federal attainment status for San Joaquin County.

As discussed under Impact 3.3-1 in Section 3.3, the proposed Project is in conformance with the AQAP, based on these criteria, as follows:

- *Determination that an AQAP is being implemented in the area where the project is being proposed.*

The SJVAPCD has implemented the current, modified 2016 8-hour AQAP as approved by CARB and approved by USEPA for the 2008 8-hour O_3 standard.

- *The proposed project must be consistent with the growth assumptions of the applicable AQAP.*

The SJCOG RTP/SCS growth projections provide for future employment/population factors. The development of the SJVAPCD AQAP is based in part on the land use general plan projections of the various cities and counties that constitute the Air Basin. The City of Tracy General Plan Land Use Element designates the Project site as Industrial, which is intended to accommodate flex/office space, manufacturing, warehousing and distribution, and ancillary uses for workers' needs. Therefore, the proposed Project, which involves the development of light industrial, warehouse and distribution and related uses, is considered consistent with the site's General Plan land use designation and its traffic would be included in volumes projected for analysis of the General Plan. The SJVAPCD AQP is based on the growth assumptions of the City of Tracy General Plan and SJCOG RTP/SCS. Since the Project is consistent with the SJCOG RTP/SCS, and SJCOG RTP/SCS projections are incorporated into the SIP, the Project is also consistent with the SIP.

- *The project must contain in its design all reasonably available and feasible air quality control measures.*

The Project incorporates various policy and rule-required implementation measures that would reduce related emissions, including all of the current Air District rules and regulations.[3] For example, the proposed Project would be required to implement Air District Rule 9510, which ensures that the Project would fulfill the Air District's emissions reduction commitments in the relevant PM_{10} and Ozone Attainment plans. In addition, the Project would comply with all applicable stationary source permitting rules implemented by SJVAPCD, which further confirms the Project would not cause or contribute to any ambient air quality standard exceedances.

As discussed in Impact 3.3-2, the proposed Project would not exceed the SJVAPCD thresholds of significance for construction or operational criteria pollutants. Additionally, as shown in Table 3.3-9, the proposed Project would not exceed the daily mass screening criteria thresholds during Project construction. Therefore, this impact would be less than significant.

Additionally, as discussed in Impact 3.3-3 of Section 3.3, implementation of the proposed project would not result in a significant increased exposure of sensitive receptors to localized concentrations of TACs, generate substantial exposure to Valley Fever, asbestos or lead-based paint, or create a CO hotspot. Further, the proposed Project does not propose uses that would create new odors that would adversely affect a substantial number of people. The proposed Project also does not introduce any new sensitive receptors. Therefore, operation of the proposed Project would not result in significant objectionable odors.

The increase in industrial square footage anticipated with buildout of the Project is generally consistent with growth projections assumed in the Tracy General Plan for the same time horizon. It is also noted that the proposed Project, as well as future projects in the City and County, will be

[3] See here for further detail: https://www.valleyair.org/rules/1ruleslist.htm

subject to the requirements of the SJVAPCD. For these reasons, cumulative impacts related to air quality are ***less than significant***.

BIOLOGICAL RESOURCES

The geographic context for biological resources includes the Project site and the greater San Joaquin County region. Development associated with implementation of the local General Plan(s) would contribute to the ongoing loss of natural and agricultural lands in San Joaquin County, including the Project site. Cumulative development would result in the conversion of existing habitat to urban uses. The local General Plan(s), in addition to regional, State and federal regulations, includes policies and measures that mitigate impacts to biological resources associated with General Plan buildout. Additionally, local land use authorities in San Joaquin County require development to participate in the SJMSCP, which is a habitat conservation plan and natural community conservation plan for San Joaquin County that provides a mechanism for compensatory mitigation for habitat and species loss in accordance with federal and State laws.

Impact 4.6: Cumulative Loss of Biological Resources Including Habitats and Special Status Species (Less than Significant)

Under cumulative conditions, buildout of the General Plan(s) within San Joaquin County will result in impacts to biological resources associated with new development. The General Plan(s) includes policies that are designed to minimize impacts to the extent feasible and the SJMSCP has been established to provide a mechanism for compensatory mitigation and standardized avoidance and minimization measures as needed.

As described in Section 3.4 Biological Resources, construction in the Project site has the potential to result in impacts to special-status species in the region. The California Natural Diversity Database (CNDDB) currently contains records for San Joaquin kit fox, big tarplant, caper-fruited tropidocarpum, burrowing owl, and tricolored blackbird in the vicinity of the Project site. The Project site provides potential habitat for several species, including those discussed in Section 3.4.

Mitigation Measure 3.4-1 requires participation with the SJMSCP, which includes the payment of fees that will be used to purchase conservation lands for a variety of special status species. The SJMSCP was created and adopted and addresses both the Project and cumulative impacts to biological resources, including special status species. The proposed Project will participate in the SJMSCP, including payment of fees and implementation of all Incidental Take Minimization Measures required by the SJCOG through the authorization of SJMSCP coverage.

The ongoing operational phase of the proposed Project requires discharge of stormwater into the City storm drainage system, which ultimately discharges into the Delta. The discharge of stormwater could result in indirect impacts to special status fish and wildlife if stormwater was not appropriately treated through BMPs prior to its discharge to the Delta. The Project is subject to the requirements of Chapter 11.34 of the Tracy Municipal Code – Stormwater Management and Discharge Control. This chapter is intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 USC Section 1251 et seq.), Porter- Cologne Water

Quality Control Act (California Water Code Section 13000 et seq.) and National Pollutant Discharge Elimination System ("NPDES") Permit No. CAS000004, as such permit is amended and/or renewed. The management of water quality through BMPs is intended to ensure that water quality does not degrade to levels that would interfere or impede fish or wildlife.

The Project would result in impacts to biological resources including habitats and special status species. The City has evaluated urban development in the Project area through the General Plan process, and subsequently determined that urban development in this location is appropriate. The proposed project, when considered alongside all past, present, and probable future projects (inclusive of buildout of the various General Plans within San Joaquin County), would not be expected to cause any significant cumulative impacts. Implementation of the regulations contained in the SJMSCP and the various General Plans within San Joaquin County would ensure that future projects minimize their potential biological resources. For these reasons, cumulative impacts on the loss of biological resources are ***less than significant***.

CULTURAL AND TRIBAL RESOURCES

The geography of cultural resources impacts can be defined by region, by political subdivision or by the geography of the cultural resources present in an area, where sufficient inventory data is available to define it. The geographic context for cultural resources includes all of the San Joaquin County. There are extensive cultural sites located in the region.

Impact 4.7: Cumulative Impacts on Known and Undiscovered Cultural and Tribal Resources (Less than Significant)

Cumulative development anticipated in the City of Tracy, including growth projected by adopted future projects, may result in the discovery and removal of cultural resources, including archaeological, paleontological, historical, and Native American resources and human remains. As discussed in Section 3.5, Cultural and Tribal Resources, four residences and six buildings used for livestock, processing, and storage are present in the southern half of the Project site, in addition to several small sheds and small animal shelters. Two connected dry ponds are present along the central eastern edge of the property. Aerial photograph summaries indicate that several residences and farm structures potentially date back as early as prior to 1940. As noted previously, one of the residences is abandoned and in need of ample maintenance, both structurally and aesthetically. One of the residences is currently occupied. All of the residences have been renovated and or remodeled multiple times over the decades. The architectural style of the residences are prevalent throughout the city and rural areas in the Central Valley.

Additionally, a California Historic Resources Information System (CHRIS) search was requested from the Central California Information Center (CCIC), which included the Project area and a one-half mile radius (CCIC File #12470L). The results of the CCIC records search indicated that the Project site does not contain any recorded buildings or structures listed on the State Office of Historic Preservation Historic Property Directory (which includes listings of the CRHR, California State Historical Landmarks, California State Points of Historical Interest, and the NRHP). The records search also noted that the General Land Office Survey Plat does not reference any historic features in the Project site.

Any previously unknown cultural resources which may be discovered during development of the proposed Project would be required to be preserved, either through preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. With implementation of the mitigation measures provided in Section 3.5, the proposed Project is not anticipated to considerably contribute to a significant reduction in cultural resources in the region.

All future projects in the regional vicinity would be subject to their respective General Plans (i.e., City of Tracy, City of Lathrop, and San Joaquin County), each of which have policies and measures that are designed to ensure protection of undiscovered cultural resources. In addition, all discretionary projects in these jurisdictions would require environmental review per regulations established in CEQA. As such, impacts related to cultural resources would result in a ***less than significant***.

GEOLOGY AND SOILS

Impacts related to geology and soils are not inherently cumulative. Geology and soils concerns are related to risks, hazards or development constraints that are largely site-specific. However, seismic hazards are regional, and management of seismic hazards is vested with the local planning and building authority. For these reasons, the potential for cumulative geology and soils impacts are considered in the context of the City of Tracy and vicinity.

Impact 4.8: Cumulative Impact on Geologic and Soils Resources (Less than Significant)

As discussed in Section 3.6, Geology and Soils, Geotechnical Review was prepared to review readily-available geotechnical and geologic information in order to identify potential geotechnical-related risks associated with the Project site. According to the Geotechnical Review, the proposed Project is geotechnically feasible and concerns related to ground rupture, ground shaking, liquefication, or landslides were not identified. The Project would be required to be constructed using standard engineering and seismic safety design techniques of the California Building Code, which would reduce any potential impact to a less than significant level. Additionally, the Geotechnical Review includes preliminary recommendations regarding clearing of existing buildings, building support and foundations, excavation, expansive soils, engineered fill, seasonal moisture, site drainage, and pavement design. However, mitigation measures provided in Section 3.6 ensure impacts related to soil hazards will be less than significant.

Additionally, the nearest earthquake fault zoned as active by the CGS is the Black Butte Fault, located approximately 1.1 miles to the south of the Project site. However, this fault is not considered an active fault that would trigger evaluation under the Alquist-Priolo Earthquake Fault Zoning Act. While the City is not within an area known for its seismic activity, there will always be a potential for groundshaking caused by seismic activity anywhere in California, including the Project site. In order to minimize potential damage to the buildings and site improvements, all construction in California is required to be designed in accordance with the latest seismic design standards of the California Building Code. Additionally, the Project would be required to comply with Mitigation Measure 3.6-1, which requires a final geotechnical evaluation be prepared and design recommendations identified to address any soil conditions within the Project site. Design in accordance with the

Building Code and final geotechnical evaluation would reduce any potential impact to a less than significant level.

Geologic and soils impacts tend to be site-specific and Project-specific. With the mitigation measure presented in Section 3.6, implementation of the proposed Project would not result in increased risks or hazards related to geologic conditions in the cumulative area, nor would it result in any off-site or indirect impacts. Overall, impacts related to geologic and soil resources would result in a ***less than significant***.

GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY

As the California Supreme Court has reasoned, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself. The challenge for CEQA purposes is to determine whether the impact of the project's emissions of greenhouse gases is cumulatively considerable, in the sense that 'the incremental effects of [the] individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.'" (*Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 219.) "'With respect to climate change, an individual project's emissions will most likely not have any appreciable impact on the global problem by themselves, but they will contribute to the significant cumulative impact caused by greenhouse gas emissions from other sources around the globe. The question therefore becomes whether the project's incremental addition of greenhouse gases is "cumulatively considerable" in light of the global problem, and thus significant.'" (*Ibid*.)

The geographic context for greenhouse gas (GHG) emissions and climate change impacts for this analysis is San Joaquin County, which is the boundary for the California Air Resources Board's (CARB) regional greenhouse gas emissions reduction targets.

Impact 4.9: Cumulative Impact on Climate Change from Increased Project-Related Greenhouse Gas Emissions (Less than Significant)

GHG emissions from a single Project will not cause global climate change; however, GHG emission from multiple projects throughout a region or state could result in a cumulative impact with respect to global climate change.

The California Legislature has enacted a series of statutes in recent years addressing the need to reduce GHG emissions across the State. These statutes can be categorized into four broad categories: (i) statutes setting numerical statewide targets for GHG reductions, and authorizing CARB to enact regulations to achieve such targets; (ii) statutes setting separate targets for increasing the use of renewable energy for the generation of electricity throughout the State; (iii) statutes addressing the carbon intensity of vehicle fuels, which prompted the adoption of regulations by CARB; and (iv) statutes intended to facilitate land use planning consistent with statewide climate objectives.

Between AB 32 (2006) and SB 32 (2016), the Legislature has codified some of the ambitious GHG reduction targets included within certain high-profile State Executive Orders issued by the last two

Governors. The 2020 statewide GHG reduction target in AB 32 was consistent with the second of three statewide emissions reduction targets set forth in former Governor Arnold Schwarzenegger's 2005 Executive Order known as S-3-05, which is expressly mentioned in AB 32. (See Health & Safety Code Section 38501, subd. (i).) That Executive Branch document included the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels. To meet the targets, the Governor directed several State agencies to cooperate in the development of a climate action plan. The Secretary of Cal-EPA leads the Climate Action Team, whose goal is to implement global warming emission reduction programs identified in the Climate Action Plan and to report on the progress made toward meeting the emission reduction targets established in the executive order.

In 2015, Governor Jerry Brown issued Executive Order, B-30-15, which created a "new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 is established in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050." SB 32 codified this target.

In 2018, the Governor issued Executive Order B-55-18, which established a statewide goal to "achieve carbon neutrality as soon as possible, and no later than 2045, and maintain and achieve negative emissions thereafter." The order directs CARB to work with other State agencies to identify and recommend measures to achieve those goals.

Notably, the Legislature has not yet set a 2045 or 2050 target in the manner done for 2020 and 2030 through AB 32 and SB 32, though references to a 2050 target can be found in statutes outside the Health and Safety Code. Senate Bill 350 (Stats. 2015, ch. 547) added to the Public Utilities Code language that essentially puts into statute the 2050 GHG reduction target already identified in Executive Order S-3-05, albeit in the limited context of new state policies (i) increasing the overall share of electricity that must be produced through renewable energy sources and (ii) directing certain State agencies to begin planning for the widespread electrification of the California vehicle fleet. Section 740.12(a)(1)(D) of the Public Utilities Code now states that "[t]he Legislature finds and declares [that] … [r]educing emissions of [GHGs] to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050 will require widespread transportation electrification." Furthermore, Section 740.12(b) now states that the California Public Utilities Commission (PUC), in consultation with CARB and the California Energy Commission (CEC), must "direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, and reduce emissions of greenhouse gases to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050."

As presented in Table 3.7-2 in Section 3.7, short-term construction emissions of GHGs are estimated to be 2,912 MT CO_2e during Project operation, and a maximum of 470 MT CO_2e annual GHG emissions during Project construction. It should be noted that CalEEMod does not account for Governor Newsom's Zero-Emission by 2035 Executive Order (N-79-20), which requires that all new cars and passenger trucks sold in California be zero-emission vehicles by 2035. This is anticipated to

substantially reduce the operational emissions associated with passenger vehicles (i.e. mobile emissions) over time. The operational emissions results provided in Table 3.7-2 are likely an overestimate for mobile emissions, given the state's ongoing effort to increase electric vehicles and trucks.

The proposed Project would be consistent with all relevant plans, policies, and regulations associated with GHGs, including the SB 32 2017 Scoping Plan Update, and the SJCOG's 2022 RTP/SCS. Taking into account the proposed Project's emissions, and the progress being made by the State toward reducing emissions in key sectors such as transportation, industry, and electricity, the Project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment. Therefore, a ***less than significant*** cumulative impact relative to this environmental topic would result.

HAZARDS AND HAZARDOUS MATERIALS

The geographic context for the analysis of cumulative hazards and human health impacts is San Joaquin County, including all cumulative growth therein, as represented by full implementation of each respective General Plan (i.e., Stockton, Lathrop, and San Joaquin County). As discussed in Section 3.8, Hazards and Hazardous Materials, implementation of the proposed Project would not result in any significant impacts related to this environmental topic with the implementation of the mitigation measures provided in Section 3.8.

Impact 4.10: Cumulative Impact Related to Hazards and Hazardous Materials (Less than Significant)

The Project is not proposing the use of any hazardous materials. In the event that hazardous materials are discovered during construction, a Soils Management Plan (SMP) will need to be submitted and approved by the San Joaquin County Department of Environmental Health, as required by Mitigation Measure 3.8-1. Any operations that involve the use of hazardous materials would be required to have the hazardous material transported, stored, used, and disposed of in compliance with local, state, and federal regulations. To further ensure the safety of employees, and reduce the potential for accidental release of hazardous materials into the environment, the applicant must submit a HMBP to San Joaquin County Department of Environmental Health (CUPA) for review and approval prior to bringing hazardous materials onsite, as required by Mitigation Measure 3.8-2.

Additionally, development of the Project would involve site grading, excavation for utilities, trenching, backfilling, and the construction of proposed facilities that could result in the exposure of construction workers and the general public to hazardous materials. Like most agricultural and farming operations in the Central Valley, agricultural practices in the area have used agricultural chemicals including pesticides and herbicides as a standard practice. Continuous spraying of crops over many years can potentially result in a residual buildup of pesticides, in farm soils. Of highest concern relative to agrichemicals are chlorinated herbicides, organophosphate pesticides, and organochlorine pesticides (OCPs), such as such as Mecoprop (MCPP), Dinoseb, chlordane, dichloro-diphenyltrichloroethane (DDT), and dichloro-diphenyl-dichloroethylene (DDE). Mitigation Measure

3.8-3 requires site-specific soil sampling to determine if chemicals of potential concern associated with the historical agricultural uses at the Project site are present in shallow soil at concentrations that would pose a threat to human health.

As part of the Phase I Environmental Site Assessment (ESA) completed for the Project, debris and septic systems were identified on-site. Mitigation Measure 3.8-4 requires that the on-site septic systems be abandoned and removed. Mitigation Measure 3.8-5 requires that all debris/miscellaneous nonhazardous solid waste observed at the site be collected and disposed at an appropriate Solid Waste/Landfill facility.

Further, buildout of the Project would involve the demolition of the on-site structures, which were originally constructed in 1972. Given the age of the structures, it is likely that asbestos containing building materials and lead-based paints were used in the construction and/or maintenance of the on-site structures. The potential exists for construction workers to be exposed to these hazardous materials. Pursuant to federal (NESHAP), state (8 CCR 1529), and county (SJVAPCD rule 4002) regulations, all suspect asbestos-containing materials would either be presumed to contain asbestos or adequate rebuttal sampling would be conducted by an accredited building inspector prior to demolition. Demolition contractors would be required to follow applicable regulations and guidelines set forth by federal, state, and county regulations. Prior to demolition and/or renovation of structures within the Project, asbestos-containing building material and lead-based paint surveys should be conducted, as required by Mitigation Measure 3.8-6. If hazardous materials are determined to be present at concentrations exceeding applicable ESLs, appropriate remediation would need to be implemented in coordination with the San Joaquin County Environmental Health Department. Lastly, should any on-site water wells be located on-site, Mitigation Measure 3.8-7 requires proper well abandonment measures to be completed under permit and inspection by the San Joaquin County Environmental Health Department.

The proposed Project, in conjunction with cumulative development in the region, would include areas designated for a variety of urban, agricultural, and open space uses as defined by the City's General Plan. Cumulative development would include continued operation of, or development of, new facilities as allowed under each land use designation. New development would inevitably increase the use of hazardous materials within the region, resulting in potential health and safety effects related to hazardous materials use. For the most part, potential impacts associated with new and future development would be confined to commercial and industrial areas and would not involve the use of hazardous substances in large quantities or that would be particularly hazardous. Incidents, if any, would typically be site specific and would involve accidental spills or inadvertent releases. Associated health and safety risks would generally be limited to those individuals using the materials or to persons in the immediate vicinity of the materials and would not combine with similar effects elsewhere (i.e., construction workers), as hazard-related impacts tend to be site-specific and Project-specific.

Implementation of the proposed Project, in combination with and past, present, and probable future projects, would not result in significant increased risks of hazards in the cumulative area, nor would it result in any significant off-site or indirect impacts. Mitigation measures have been included to

reduce the risk of on-site hazards associated with the use of on-site hazardous materials. For these reasons, cumulative impacts associated with hazards and hazardous materials would be ***less than significant***.

NOISE

The geographic context for noise impacts consists of the existing and future noise sources that could affect the Project site or surrounding uses.

Impact 4.11: Cumulative Exposure of Existing Noise-Sensitive Land Uses to Increased Noise Resulting from Cumulative Development (Less than Significant)

Noise generated by construction would be temporary, and would not add to the permanent noise environment or be considered as part of the cumulative context. The total noise impact of the proposed Project would be fairly small and would not be a substantial increase to the existing future noise environment. Thus, the proposed Project would result in a less-than-significant cumulative impact.

Operational Noise: Cumulative noise impacts would occur primarily as a result of increased traffic on local roadways and on-site activities resulting from operation of the proposed Project. The primary non-transportation noise sources associated with the proposed Project are on-site parking lot circulation and the loading docks. Table 3.9-9 in Section 3.9, Noise, shows cumulative traffic noise levels with and without the proposed Project. As shown, cumulative traffic noise increases would not be significant.

Figure 3.9-2 shows the results of this analysis for the site layout in terms of the peak hour average (Leq). Due to the nature of loading dock operation and parking lot circulation, the maximum noise levels are the same for both daytime and nighttime. Figure 3.9-3 shows the results of this analysis in terms of the peak hour maximum noise levels (Lmax). As shown on Figures 3.9-2 and 3.9-3, the Project noise level contours exceeding the City of Tracy of County of San Joaquin noise level standards do not reach these residential uses. Operational noise levels of the proposed project comply with the applicable standards at these residences.

As shown on Figures 3.9-2 to 3.9-3, the Project noise level contours exceeding the City of Tracy of County of San Joaquin noise level standards do not reach these residential uses. Operational noise levels of the proposed project comply with the applicable standards at these residences. For these reasons, implementation of the proposed project would have a ***less than significant*** cumulative impact on operational noise

Construction Noise: Noise generated by construction would be temporary, and would not add to the permanent noise environment or be considered as part of the cumulative context. Compliance with the City's permissible hours of construction, as well as implementing the best management noise reduction techniques and practices (both outlined in Mitigation Measure 3.9-1), would ensure that construction noise would not result in a substantial temporary increase in ambient noise levels that would result in annoyance or sleep disturbance of nearby sensitive receptors.

The proposed project, when considered alongside all past, present, and probable future projects (inclusive of buildout of the various General Plans within the County), would not be expected to cause any significant cumulative construction noise impacts. The proposed Project would not have cumulatively considerable impacts associated with construction noise. Implementation of the proposed project would have a ***less than significant*** cumulative impact on construction noise.

Cumulative Conclusion: The operational noise from the proposed Project is not expected to produce noise levels that would exceed City or County standards. Consequently, the total noise impact of the proposed Project would not be a substantial increase to the future noise environment. Consequently, the proposed project, when considered alongside all past, present, and probable future projects (inclusive of buildout of the various General Plans within the County), would be expected to cause ***less than significant*** impact associated with noise.

TRANSPORTATION AND CIRCULATION

The geographic context for this analysis includes the City of Tracy Sphere of Influence (SOI) and nearby areas of San Joaquin County. The analysis models the overall change in vehicle-miles-traveled (VMT) in Tracy as a result of forecast development, with the addition of the proposed Project. The intent is to understand how the proposed Project will influence travel behavior in light of future conditions, and to identify possible significant future impacts.

Impact 4.12: Under Cumulative conditions, the proposed Project would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b) (Significant and Unavoidable and Cumulatively Considerable)

The proposed warehouse building was evaluated using the City of Tracy Draft VMT Policy Calculator. For the surrounding industrial land use area, the City's draft threshold is 9.4 VMT per employee. The proposed project is estimated to generate 25 VMT per employee. Per California Governor's Office of Planning and Research (OPR) guidance, the VMT analysis excludes truck trips. As a result, the proposed Project would exceed the threshold by 166% (Kimley Horn, 2022).

The City's Draft VMT Mitigation Banking Fee Program calculates the cost per one VMT reduction as $633.11. However, the VMT Mitigation Banking Fee Program has not yet been finalized and adopted by the City; accordingly, the applicable fee would be the amount provided for under the Mitigation Banking Fee Program adopted by the City Council and effective at the time the applicant obtains building permits. Since it is unknown if the Mitigation Banking Fee Program will be adopted at the time the proposed Project applies for building permits, two VMT mitigation options are outlined in Section 3.10.

Mitigation Measure 3.10-1, which requires TDM strategies, would be required. Implementation of Mitigation Measure 3.10-1 is feasible because it is within the applicant's purview to implement and the TDM measures have been found effective in previous academic studies. However, the precise effectiveness of specific TDM strategies can be difficult to accurately measure due to a number of external factors such as employee responses to strategies and changes to technology.

As part of Mitigation Measure 3.13-1, the proposed Project would be required to monitor and evaluate the effectiveness of the Project's TDM Plan and provide the results to the City of Tracy. Based on the results of the evaluation, modifications to the TDM Plan may be required by the City in order to improve effectiveness toward achieving the home-based work VMT per worker target.

In order for a specific project to have a less than significant impact related to VMT, the project must demonstrate that per capita VMT would be 15 percent below the regional average. Because future development would likely be equal to the regional average, or above average (or less than average but not fully 15 percent less than average), impacts relate to VMT would be ***significant and unavoidable***. Exceptions to this would be infill projects, or small projects which include VMT reducing strategies. Due to the size of the Project and the fact that the Project exceeds the City threshold by 166 percent, the incremental contribution to this cumulative VMT impact would be ***cumulatively considerable***.

Impact 4.13: Under Cumulative conditions, the proposed Project would not adversely affect pedestrian, bicycle, or transit facilities (Less than Significant)

Implementation of the proposed Project would not result in a conflict with an existing or planned pedestrian facility, bicycle facility, or transit service/facility. In addition, the Project would not interfere with the implementation of a planned bicycle facility, pedestrian facility, or transit service/facility. The Project would not cause a degradation in transit service such that service does not meet performance standards established by the transit operator.

The proposed Project, when considered alongside all past, present, and probable future projects (inclusive of buildout of the various General Plans within San Joaquin County), would not be expected to cause any significant cumulative pedestrian or bicycle facilities impacts. The proposed Project would not have cumulatively considerable impacts associated with pedestrian or bicycle facilities. Implementation of the proposed Project, in combination with and past, present, and probable future projects, would have a ***less than significant*** impact relative to this topic.

UTILITIES AND SERVICE SYSTEMS

The cumulative context includes all areas covered in the service areas of the City's wastewater system, water system, stormwater system, and the solid waste collection and disposal services. Under General Plan buildout conditions, the City would see an increased demand for water service, sewer service, solid waste disposal services, and stormwater infrastructure needs.

Impact 4.14: Cumulative Impact on Wastewater Utilities (Less than Significant)

The City of Tracy's wastewater collection system consists of gravity sewer lines, pump stations and the Wastewater Treatment Plant (WWTP). The NPDES permit for the Tracy WWTP was adopted in May 2007 with proposed amendments initiated in 2008 and 2010. Treated wastewater from the Tracy WWTP is discharged to Old River under Order No. R5-2007-0036 (NPDES No. CA0079154). Because, in the opinion of the Water Board, there is a potential impact to groundwater at the facility, the Tracy WWTP's industrial pretreatment ponds, industrial holding ponds, sludge drying beds, and biosolids storage areas of the facility are regulated by separate waste discharge requirements as

defined in Order No. R5-2007-0038. The NPDES permit CA 0079154 allows for discharge of 10.8 million gallons per day (mgd) and up to 16 mgd if applicable treatment facilities are constructed. The WWTP provides disinfected tertiary level treatment meeting Title 22 requirements of the Code of Regulations from the State Water Resource Control Board. The WWTP includes primary clarifiers, activated sludge, secondary clarifiers, flocculation, tertiary filtration, and disinfection.

The City of Tracy's wastewater treatment system is currently in compliance with the WDR requirements of Order No. R5-2007-0036 NPDES NO. CA0079154. The wastewater treatment system options covered under this Order include: City of Tracy WWTP including the collection system, basin/disposal fields, discharge to the Old River, and recycling conveyance and irrigation system. The development of the proposed Project under this permitted option would not exceed the wastewater discharge requirements in this Order as described under Impact 3.11-1 in Section 3.11.

The overall collection sewer strategy for the City of Tracy, including the proposed Project, consists of a combination trunk sewer gravity collection system with pump or lift stations located along the collection system to convey wastewater to an influent pump station located at the City WWTP.

New wastewater collection and conveyance infrastructure needed for the proposed Project would require trenching/excavation of earth, and placement of pipe within the trenches at specific locations, elevations, and gradients. All wastewater utility improvements would be within the Development Area or on land currently developed with roadways (i.e., Hansen Road and Schulte Road), the impacts of which are discussed throughout this EIR.

The average dry weather flow (ADWF) for the proposed Project was calculated based on the wastewater generation factors adopted in the 2012 Wastewater Master Plan. As shown in the Sewer Collection System Hydraulic Capacity Analysis completed for the Project (Appendix I), the total ADWF for the proposed Project is approximately 22,092 gallons per day (gpd) (or 0.02 mgd) based on a wastewater generation factor of 1,056 gpd/gross acre for the industrial land use designation. The wastewater would be treated at the WWTP, which has an ADWF design capacity of 10.8 mgd. Additionally, the City is in the process of constructing a Project to increase the capacity of the WWTP to manage growth in the future. Based on the Sewer Collection System Hydraulic Capacity Analysis completed for the proposed Project, the existing WWTP has the capacity to treat and dispose of the proposed 0.02 mgd increase in flows from the proposed project. As part of the City's Project review and approval process, the Engineering Division confirms that sewer capacity to accommodate a project is adequate prior to project approval.

The Project by itself does not exceed the existing capacity of the wastewater treatment plant. The Project and any future cumulative projects would be required to secure adequate wastewater treatment capacity/allocation prior to occupancy of any building which would require wastewater treatment services. Implementation of the proposed Project, in combination with and past, present, and probable future projects, would have a ***less than significant*** impact relative to this topic.

Impact 4.15: Cumulative Impact on Water Utilities (Less than Significant)

The provision of public services and the construction of onsite infrastructure improvements will be required to accommodate the development of the proposed Project. Water distribution will be by an underground distribution system to be installed as per the City of Tracy standards and specifications. The proposed Project would require extension of offsite water conveyance infrastructure to the Project site for potable water and irrigation water. All offsite water utility improvements will be in or adjacent to existing roadways along the perimeter of the Project site, thereby limiting any potential impact to areas that were not already disturbed.

Projected water demands for buildout of the Proposed Project total approximately 32.2 acre-feet per year (AFY) of which about approximately 23.1 AFY is industrial demand, approximately 6.0 AFY is irrigation demand, and approximately 3.1 AFY of unaccounted-for water. The Hydraulic Evaluation completed for the proposed Project demonstrates that the City's existing and available potable water supplies are sufficient to meet the City's existing and projected future potable water demands to the year 2040 under all hydrologic conditions. Implementation of the proposed Project would have a ***less than significant*** and ***less than cumulatively considerable*** impact relative to this topic.

Impact 4.16: Cumulative Impact on Stormwater Facilities (Less than Significant)

Because the proposed project increases impervious surface area from an existing undeveloped and predominately previous site, the Project site could increase runoff significantly, Project impacts to stormwater are considered potentially significant. Onsite storm drainage would be installed to serve the proposed Project. Development of the proposed Project would include construction of a new storm drainage system, including a drainage collection system, and detention basins. All on-site storm drainage runoff will be collected through drain inlets and catch basins along the streets, and conveyed via surface swales and underground trunk lines to detention and water quality basins. The storm water drainage detention basins will be constructed to meet the City of Tracy Standards. Discharge from the basins will be conveyed through controlled flow pumping facilities to existing City of Tracy and main storm drain laterals.

Installation of the Project's storm drainage system will be subject to current City of Tracy Design Specifications and Standards. The proposed storm drainage collection and detention system will be subject to the SWRCB and City of Tracy regulations, including: Tracy Storm Drain Master Plan, 2012; Phase II, NPDES Permit Requirements; NPDES-MS4 Permit Requirements; and LID Guidelines.

The potential environmental effects resulting from construction of the storm drainage system are analyzed throughout this Draft EIR, and in some cases, there are potentially significant impacts associated with construction of this infrastructure. Where impacts are identified for each environmental topic, mitigation measures are developed to avoid, minimize, or compensate for the impact to the extent practicable. All mitigation measures presented throughout this EIR will be implemented to reduce impacts to the extent practicable. There will not be any significant impacts beyond what is disclosed in the other chapters of this document. Implementation of the proposed Project, in combination with and past, present, and probable future projects, would have a ***less than significant*** impact relative to this topic.

4.2 SIGNIFICANT IRREVERSIBLE EFFECTS

LEGAL CONSIDERATIONS

CEQA Section 15126.2(c) and Public Resources Code Sections 21100(b)(2) and 21100.1(a), require that the EIR include a discussion of significant irreversible environmental changes which would be involved in the proposed action should it be implemented. Irreversible environmental effects are described as:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g., a highway provides access to previously remote area);
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing of the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Determining whether the proposed Project would result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed such that there would be little possibility of restoring them. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Analysis

Implementation of the proposed Project would result in the conversion of the approximately 20.92-acre Development Area, which is comprised of vacant land previously used for agricultural purposes as well as residential uses in the southern portion of the site for the development of industrial uses. Development of the proposed Project would constitute a long-term commitment to these uses. It is unlikely that circumstances would arise that would justify the return of the land to its previous condition as agricultural or vacant rural land.

A variety of resources, including land, energy, water, construction materials, and human resources would be irretrievably committed for the initial construction, infrastructure installation and connection to existing utilities, and its continued maintenance. Construction of the proposed Project would require the commitment of a variety of other non-renewable or slowly renewable natural resources such as lumber and other forest products, sand and gravel, asphalt, petrochemicals, and metals.

Additionally, a variety of resources would be committed to the ongoing operation and life of the proposed Project. The introduction of an industrial use to the Project site will result in an increase in area traffic over existing conditions. Fossil fuels are the principal source of energy and the proposed Project will increase consumption of available supplies, including gasoline and diesel. These energy resource demands relate to initial Project construction, Project operation and site maintenance and the transport of people and goods to and from the Project site.

4.3 SIGNIFICANT AND UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. The following significant and unavoidable impacts of the proposed Project are discussed in Sections 3.1 through 3.10 and previously in this chapter (cumulative-level). Refer to those discussions for further details and analysis of the significant and unavoidable impact identified below:

- Impact 3.1-1: Project implementation may result in substantial adverse effects on scenic vistas;
- Impact 3.10-1: Project implementation may conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Impact 4.2: Cumulative Degradation of the Existing Visual Character of the Region; and
- Impact 4.12: Under Cumulative conditions, the proposed Project would conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

4.4 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the CEQA Guidelines requires an EIR to "discuss the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth..." In general terms, a project may result in a significant growth inducing impact if it individually or cumulatively with other projects results in any of the actions described in the following examples:

- The project removes an obstacle to growth, such as: the establishment of an essential public service, the provision of new access to an area, or a change in zoning or general plan designation.
- The project results in economic expansion, population growth or the construction of additional housing occurs in the surrounding environment in response to the project, either directly or indirectly.

Existing storm drain, sewer, water, and gas lines/pipes are currently located along Schulte Road and Hansen Road. The Project would be served by existing sewer, water and other utility services that have been established on the Project site and in the Project area. Site access would be provided by two new driveways: one from the southwest, off of Hansen Road; and one from the north, off of West Schulte Road. The project would also involve improvements to Hansen Road adjacent to the Project site, including roadway resurfacing improvements and construction of an interim driveway access to the site off Hansen Road. In the future, the City may construct a roundabout at the southwestern site access point. Overall, the proposed Project would not require an extension of public services that have the potential to result in or facilitate unplanned growth in the Project area.

The proposed Project would provide employment opportunities for City and County residents on a site that has been planned for industrial development by the City of Tracy General Plan and

associated EIR. Overall, the additional industrial uses in the City would not have the long-term effect of inducing population growth.

The Project would result in an increase in employment opportunities by creating full-time job positions. The Project would also generate short-term construction employment opportunities, but these opportunities would not result in substantial population growth in the project region. Therefore, the proposed Project would not result in significant growth inducing impacts.

5.1 CEQA REQUIREMENTS

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) analyze a reasonable range of feasible alternatives that meet most or all project objectives while reducing or avoiding one or more significant environmental effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines Section 15126.6[f]). Where a potential alternative was examined but not chosen as one of the range of alternatives evaluated in the EIR, the CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed.

PROJECT OBJECTIVES

The principal objective of the proposed Project is the demolition of three single family residences and six ancillary structures and redevelopment of the Development Area with a one-story, 217,466 sf warehouse building and a surface parking lot.

The City and the Project applicant have identified the following objectives:

- Construct and operate an industrial warehouse facility within one separate building containing ground-level shipping and receiving truck loading docks that is of sufficient size to efficiently operate for the future tenant(s).
- Annex the property into the City Limits and develop the site with light industrial uses, consistent with the City's General Plan land use designation for the site.
- Locate an industrial Project in an area with nearby access to a regional roadway network.
- Ensure that the industrial area along West Schulte Road continues to be developed in a visually pleasing manner.
- Increase contributions to the City's tax base.
- Provide site ingress access for trucks from West Schulte to allow for efficient on-site circulation.
- Complete the Project on schedule and within budget.

ALTERNATIVES NOT SELECTED FOR FURTHER ANALYSIS

A Notice of Preparation (NOP) was circulated to the public to solicit recommendations for a reasonable range of alternatives to the proposed Project. Additionally, a public scoping meeting was held during the public review period to solicit recommendations for a reasonable range of alternatives to the proposed Project. No specific alternatives were recommended by commenting agencies or the general public during the NOP public review process.

The City of Tracy considered alternative locations early in the public scoping process. The City's key considerations in identifying an alternative location were as follows:

- Is there an alternative location where significant effects of the Project would be avoided or substantially lessened?

- Is there a site available with the appropriate size and characteristics such that it would meet the basic Project objectives?

The City's consideration of alternative locations for the Project included a review of lands in the west part of Tracy that are located within the Sphere of Influence and are otherwise suitable for development. The City has found that there are no feasible alternative locations that exist within the City's Sphere of Influence with the appropriate size and characteristics that would meet the basic Project objectives and avoid or substantially lessen a significant effect. The City has determined that alternative locations outside the Sphere of Influence would not be feasible because an expansion of the Sphere of Influence would induce unplanned growth and cause impacts greater than development on the Project site. No sites of adequate size and availability have been identified, nor would any such sites be expected to minimize environmental impacts. For these reasons, the City of Tracy determined that there are no feasible alternative locations.

In addition, as discussed in *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553 (Goleta II), where a project is consistent with an approved general plan, no off-site alternative need be analyzed in the EIR. The EIR "is not ordinarily an occasion for the reconsideration or overhaul of fundamental land-use policy." (Goleta II, supra, 52 Cal.3d at p. 573.) In approving a general plan, the local agency has already identified and analyzed suitable alternative sites for particular types of development and has selected a feasible land use plan. "Informed and enlightened regional planning does not demand a project EIR dedicated to defining alternative sites without regard to feasibility. Such ad hoc reconsideration of basic planning policy is not only unnecessary, but would be in contravention of the legislative goal of long-term, comprehensive planning." (Goleta II, supra, 52 Cal.3d at pp. 572-573.) Here, the proposed Project is generally consistent with the types of uses considered in the Tracy General Plan and associated EIR, and thus, in addition to the reasons discussed above, an off-site alternative need not be further discussed in this EIR.

5.2 ALTERNATIVES CONSIDERED IN THIS EIR

Three alternatives to the proposed Project were developed based on input from City staff and the technical analysis performed to identify the environmental effects of the proposed Project. The alternatives analyzed in this EIR include the following three alternatives in addition to the proposed Project.

- **No Project (No Build) Alternative**: Under this alternative, development of the Project site would not occur, and the Project site would remain in its current existing condition and not be annexed into the City.
- **Truck Parking Alternative:** Under this alternative, a truck parking facility with truck and trailer parking spaces and restroom facilities would be developed on the Project site.
- **Reduced Project Alternative:** Under this alternative, the proposed Project would be developed with the same types of industrial uses as described in the Project Description, but the industrial square footage would decrease by 25 percent and the amount of developed land would decrease by 25 percent.

NO PROJECT (NO BUILD) ALTERNATIVE

Under the No Project (No Build) Alternative development of the Project site would not occur, and the Project site would remain in its current existing condition and not be annexed into the City. The Williams Communications Parcel is currently developed with a low voltage transmission station operated by Williams Communications, Inc. The remainder of the Project site is currently developed with three single-family residences and six ancillary structures while the remainder consists primarily of ruderal grasses which are regularly disced. The No Project (No Build) Alternative would fail to meet the Project objectives identified by the Project applicant.

TRUCK PARKING ALTERNATIVE

The Truck Parking Alternative was developed based on input from City staff and the project applicant. This project alternative would include demolition of the three single-family residences and six ancillary structures and redevelopment of the Development Area with a truck parking facility with truck and trailer parking spaces and restroom facilities (see Figure 5.0-1). The Williams Communication Parcel would not be developed as part of the project alternative.

The parking areas would include approximately four short-term bicycle parking spaces, one standard parking stall, one Americans with Disabilities Act (ADA) accessible parking stall, and 344 truck/trailer parking stalls. The parking areas would be located throughout the Development Area. The restroom facilities would be located in a 636-sf building in the southwestern portion of the site. The facilities would include a waiting area, women's restroom/shower, men's restroom/shower, and a unisex restroom. The maximum height of the restroom facility building would be 14.5 feet.

Site access, landscaping, and utility improvements would be similar to the proposed project. For example, landscaping would be provided throughout the site, and on-site improvements to Hansen Road, including roadway resurfacing improvements and construction of a roundabout at the southwestern site access point, would occur. Utility lines within the project site and adjacent roadways would be extended throughout the project site. Wastewater, water, and storm drainage lines would be connected via existing lines along West Schulte Road. The project alternative would also connect to existing electrical and natural gas infrastructure in the project vicinity along West Schulte Road. Unlike the proposed project, only one access point would be provided off Hansen Road in the southwestern portion of the Development Area.

The same entitlements required for the proposed project would be required for this alternative, including but not limited to pre-zoning, annexation and a Development Review Permit.

The Truck Parking Alternative would fail to meet most of the Project objectives identified by the Project applicant.

REDUCED PROJECT ALTERNATIVE

Under the Reduced Project Alternative, the proposed Project would be developed with the same types of industrial uses as described in the Project Description, but the industrial square footage would decrease by 25 percent and the amount of developed land would decrease by 25 percent.

Under the Reduced Project Alternative, the total Development Area would decrease from approximately 20.92 acres under the proposed Project to approximately 15.69 acres. The remaining 5.23 acres outside of the Reduced Project Alternative area would be located along the southern boundary of the site. The existing home and facilities would still be demolished in order to accommodate a warehouse building.

The amount of industrial uses would decrease from 217,466 square feet (sf) to 163,099 sf. Because the amount of urban development would decrease, the size of the parking areas and storm basins would also decrease. The areas developed with urban uses would be located in the northern portion of the Project site.

5.3 ENVIRONMENTAL ANALYSIS

The alternatives analysis provides a summary of the relative impact level of significance associated with each alternative for each of the environmental issue areas analyzed in this EIR. Following the analysis of each alternative, Table 5.0-1 summarizes the comparative effects of each alternative.

NO PROJECT (NO BUILD) ALTERNATIVE

Aesthetics and Visual Resources

As described in Section 3.1, the visual character of the Project site would be significantly altered as a result of Project implementation. Consistency with the General Plan, Tracy Zoning Ordinance, and development standards would ensure that impacts are reduced to the greatest extent possible. Nevertheless, impacts related to degradation of the visual character of the site would be significant and unavoidable.

Compliance with the City of Tracy Standard Plan #146 and the City Municipal Code requirements pertaining to lighting would ensure that lighting features do not result in light spillage onto adjacent properties and do not significantly impact views of the night sky. Adherence to these standards ensure that excessively reflective building materials are not used, and that the proposed Project would not result in significant impacts related to daytime glare. As such, impacts related to nighttime lighting and daytime glare would be less than significant.

The No Project (No Build) Alternative would leave the Project site in its existing state and would not result in increases in daytime glare or nighttime lighting. The visual character of the Project site would not change under this alternative compared to existing conditions.

The No Project (No Build) Alternative would avoid the light, glare, and visual character impacts resulting from the Project altogether. As such, this impact would be reduced when compared to the proposed Project.

Agricultural Resources

Development of the proposed Project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Additionally, the Project site is not under a Williamson Act contract. The Project site is zoned General Agriculture (AG-40) by

San Joaquin County; however, the proposed City pre-zoning would include the following zoning designation: Light Industrial (M-1). The pre-zoning would go into effect upon annexation into the City of Tracy.

The No Project (No Build) Alternative would result in no development on the Project site. As such, this alternative would have no impact on agricultural land, no potential for conflicts with existing agricultural resources, and no potential for conflict with regulations and plans intended to protect those resources. As such, impacts related to agricultural resources would be reduced when compared to the proposed Project.

Air Quality

As discussed under Impact 3.3-1 in Section 3.3, the proposed Project is in conformance with the AQAP, based on these criteria, as follows:

- *Determination that an AQAP is being implemented in the area where the project is being proposed.*

The SJVAPCD has implemented the current, modified 2016 8-hour AQAP as approved by CARB and approved by USEPA for the 2008 8-hour O_3 standard.

- *The proposed project must be consistent with the growth assumptions of the applicable AQAP.*

The SJCOG RTP/SCS growth projections provide for future employment/population factors. The development of the SJVAPCD AQAP is based in part on the land use general plan projections of the various cities and counties that constitute the Air Basin. The City of Tracy General Plan Land Use Element designates the Project site as Industrial, which is intended to accommodate flex/office space, manufacturing, warehousing and distribution, and ancillary uses for workers' needs. Therefore, the proposed Project, which involves the development of light industrial, warehouse and distribution and related uses, is considered consistent with the site's General Plan land use designation and its traffic would be included in volumes projected for analysis of the General Plan. The SJVAPCD AQP is based on the growth assumptions of the City of Tracy General Plan and SJCOG RTP/SCS. Since the Project is consistent with the SJCOG RTP/SCS, and SJCOG RTP/SCS projections are incorporated into the SIP, the Project is also consistent with the SIP.

- *The project must contain in its design all reasonably available and feasible air quality control measures.*

The Project incorporates various policy and rule-required implementation measures that would reduce related emissions, including all of the current Air District rules and regulations.[1] For example, the proposed Project would be required to implement Air District Rule 9510, which ensures that the Project would fulfill the Air District's emissions reduction commitments in the relevant PM_{10} and Ozone Attainment plans. In addition, the Project would comply with all applicable stationary source

[1] See here for further detail: https://www.valleyair.org/rules/1ruleslist.htm

permitting rules implemented by SJVAPCD, which further confirms the Project would not cause or contribute to any ambient air quality standard exceedances.

As discussed in Impact 3.3-2, the proposed Project would not exceed the SJVAPCD thresholds of significance for construction or operational criteria pollutants. Additionally, as shown in Table 3.3-9, the proposed Project would not exceed the daily mass screening criteria thresholds during Project construction. Therefore, this impact would be less than significant. Further, as discussed in Impact 3.3-3 of Section 3.3, implementation of the proposed project would not result in a significant increased exposure of sensitive receptors to localized concentrations of TACs, generate substantial exposure to Valley Fever, asbestos or lead-based paint, or create a CO hotspot. The proposed Project does not propose uses that would create new odors that would adversely affect a substantial number of people. The proposed Project also does not introduce any new sensitive receptors. Therefore, operation of the proposed Project would not result in significant objectionable odors.

Under the No Project (No Build) Alternative, the Project site would not be developed, and there would be no net change in emissions and no potential for a conflict with any adopted plans or policies related to air quality. As such, this impact would be reduced when compared to the proposed Project.

Biological Resources

As described in Section 3.4 Biological Resources, construction on the Project site has the potential to result in impacts to special-status species in the region. The California Natural Diversity Database (CNDDB) currently contains records for San Joaquin kit fox, big tarplant, caper-fruited tropidocarpum, burrowing owl, and tricolored blackbird within one mile of the Project site. The Project site provides potential habitat for several species. Mitigation Measure 3.4-1 requires participation with the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), which includes fees that would be used to purchase conservation lands for a variety of special status species. The SJMSCP was created and adopted to address both the Project and cumulative impacts to biological resources, including special status species. The proposed Project will participate in the SJMSCP, including payment of fees and implementation of all Incidental Take Minimization Measures required by the San Joaquin Council of Governments (SJCOG) through the authorization of SJMSCP coverage. Through the implementation of various mitigation measures found in Section 3.4, implementation of the proposed Project will have a less than significant impact on biological resources.

Under the No Project (No Build) Alternative, the proposed Project would not be constructed, no habitat would be removed, and no ground disturbing activities would occur. As such, this impact would be reduced when compared to the proposed Project.

Cultural and Tribal Resources

As discussed in Section 3.5, Cultural and Tribal Resources, four residences and six buildings used for livestock, processing, and storage are present in the southern half of the Project site, in addition to several small sheds and small animal shelters. The remainder of the Development Area is undeveloped. A California Historic Resources Information System (CHRIS) search was requested

from the Central California Information Center (CCIC), which included the Project area and a one-half mile radius (CCIC File #12470L). The results of the CCIC records search indicated that the Project site does not contain any recorded buildings or structures listed on the State Office of Historic Preservation Historic Property Directory (which includes listings of the California Register of Historical Resources [CRHR], California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places [NRHP]).

The General Land Office survey plat for T2S R4E (dated 1857) shows an unnamed road crossing diagonally through the NW ¼ of the NW ¼ of Section 35, outside the Project site. The 1916 edition of the Midway USGS quadrangle shows the alignment of Schulte Road and Hansen Road. The 1953 edition of the Midway 7.5' quadrangle references a road and 7 buildings within the vicinity, however, outside the Project site. The CCIC has no further information on file regarding these possible historical resources that would be 70 years in age (or older). In the vicinity of the Project site, the Delta-Mendota Canal has been recorded as P-39-000089, evaluated in reference to the NRHR as "2S2", individual property determined eligible for the NR by consensus through the Section 106 process, and listed on the California Register of Historical Resources. No historic or prehistoric resources have ever been recorded within the Project site.

Any previously unknown cultural resources that may be discovered during development of the proposed Project would be required to be preserved, either through preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. With implementation of the mitigation measures provided in Section 3.5, the proposed Project would not considerably contribute to a significant reduction in cultural resources in the region.

The No Project (No Build) Alternative would result in no ground disturbing activities related to the proposed Project and would not have the potential to disturb or destroy cultural, historic, and archaeological resources, or paleontological resources. While the proposed Project is not anticipated to result in significant impacts to cultural resources with mitigation, the No Project (No Build) Alternative would result in less potential for impacts to cultural resources as the entire Project site would continue to be available for agriculture production. As such, this impact would be reduced when compared to the proposed Project.

Geology and Soils

As described in Section 3.6, implementation of the proposed Project would result in the construction of new structures on the Project site. The new structures would be subject to seismic, geologic, and soils hazards for the life of the Project. According to the Geotechnical Review, the proposed Project is geotechnically feasible and concerns related to ground rupture, ground shaking, liquefication, or landslides were not identified. However, mitigation measures provided in Section 3.6 ensure impacts related to soil hazards and paleontological resources will be less than significant.

The No Project (No Build) Alternative would result in the Project site remaining in its existing condition. There is one residential structure on the Project site that is subject to geologic risks. The No Project (No Build) Alternative would not involve new construction that could be subject to

seismic, geologic or soils hazards; thus, this alternative would have no potential for impact. As such, this impact would be reduced when compared to the proposed Project.

Greenhouse Gases, Climate Change and Energy

Short-term construction greenhouse gas (GHG) emissions are a one-time release of GHGs and are not expected to significantly contribute to global climate change over the lifetime of the proposed Project. As presented in Table 3.7-2 in Section 3.7, short-term construction emissions of GHGs are estimated to be 2,912 MT CO_2e during Project operation, and a maximum of 470 MT CO_2e annual GHG emissions during Project construction. The proposed Project would be consistent with all relevant plans, policies, and regulations associated with GHGs, including the SB 32 2017 Scoping Plan Update, and the SJCOG's 2022 RTP/SCS. Taking into account the proposed Project's emissions, and the progress being made by the State toward reducing emissions in key sectors such as transportation, industry, and electricity, the Project would be consistent with State GHG Plans and would further the State's goals of reducing GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment. Impacts related to GHGs were determined to be less than significant.

Under the No Project (No Build) Alternative, the Project site would not be developed, and there would be no net change in emissions and no potential for a conflict with any adopted plans or policies related to GHG reductions. As such, this impact would be reduced when compared to the proposed Project.

Hazards and Hazardous Materials

For the most part, potential impacts associated with new and future development would be confined to commercial and industrial areas and would not involve the use of hazardous substances in large quantities or that would be particularly hazardous. Incidents, if any, would typically be site specific and would involve accidental spills or inadvertent releases. Associated health and safety risks would generally be limited to those individuals using the materials or to persons in the immediate vicinity of the materials and would not combine with similar effects elsewhere (i.e., construction workers), as hazard-related impacts tend to be site-specific and Project-specific.

In the event that hazardous materials are discovered during construction, a Soils Management Plan (SMP) will need to be submitted and approved by the San Joaquin County Department of Environmental Health, as required by Mitigation Measure 3.8-1. Additionally, a Hazardous Materials Business Plan (HMBP) is required by Mitigation Measure 3.8-2 to ensure the safety of employees, and reduce the potential for accidental release of hazardous materials into the environment during construction. Further, as part of the Phase I Environmental Site Assessment (ESA) completed for the Project, debris and septic systems were identified on-site. Mitigation Measure 3.8-4 requires that the on-site septic systems be abandoned and removed. Mitigation Measure 3.8-5 requires that all debris/miscellaneous nonhazardous solid waste observed at the site be collected and disposed at an appropriate Solid Waste/Landfill facility.

Buildout of the Project would involve the demolition of the on-site structures, which were originally constructed in 1972. Given the age of the structures, it is likely that asbestos containing building

materials and lead-based paints were used in the construction and/or maintenance of the on-site structures. The potential exists for construction workers to be exposed to these hazardous materials. Pursuant to federal (NESHAP), state (8 CCR 1529), and county (SJVAPCD rule 4002) regulations, all suspect asbestos-containing materials would either be presumed to contain asbestos or adequate rebuttal sampling would be conducted by an accredited building inspector prior to demolition. Demolition contractors would be required to follow applicable regulations and guidelines set forth by federal, state, and county regulations. Prior to demolition and/or renovation of structures within the Project, asbestos-containing building material and lead-based paint surveys should be conducted, as required by Mitigation Measure 3.8-6. If hazardous materials are determined to be present at concentrations exceeding applicable ESLs, appropriate remediation would need to be implemented in coordination with the San Joaquin County Environmental Health Department. Lastly, should any on-site water wells be located on-site, Mitigation Measure 3.8-7 requires proper well abandonment measures to be completed under permit and inspection by the San Joaquin County Environmental Health Department.

Under the No Project (No Build) Alternative, no new land uses would be introduced to the Project site, and the potential for hazardous material release on the Project site would be eliminated. As such, this impact would be reduced when compared to the proposed Project.

Noise

The primary noise sources associated with the proposed Project are on-site parking lot circulation and the loading docks, as well as vehicular traffic. Mitigation Measure 3.9-1 provided in Section 3.9 would reduce the potential construction noise impact to a less than significant level.

Under the No Project (No Build) Alternative, the Project site would not be developed and there would be no potential for new noise sources. As such, this impact would be reduced when compared to the proposed Project.

Transportation and Circulation

The No Project (No Build) Alternative would not introduce additional vehicle trips onto the area roadways. It was determined that the proposed Project would cause an increase in vehicle miles traveled (VMT) for home-based work trips per employee. Mitigation was identified to alleviate long term impacts; however, impacts related to VMT were deemed to be significant and unavoidable. All other transportation related impacts were determined to be less than significant.

Under the No Project (No Build) Alternative, these potential impacts would be avoided, and the No Project (No Build) Alternative would have a reduced traffic impact when compared to the proposed Project.

Utilities and Service Systems

The No Project (No Build) Alternative would not introduce employment generating uses or housing uses which would increase the demand for utilities. Under the proposed Project, impacts related to utilities were determined to be less-than-significant or less-than-significant with mitigation. Under the No Project (No Build) Alternative, these potential impacts would be avoided, and the No Project

(No Build) Alternative would have a reduced utilities impact when compared to the proposed Project.

TRUCK PARKING ALTERNATIVE

Aesthetics and Visual Resources

The aesthetics-related impacts would be slightly reduced with the Truck Parking Alternative as this alternative is located on the same site as the proposed Project but would be developed with a truck parking lot without a warehouse building. Due to the elimination of the warehouse building proposed by to the Project, the changes to the visual character of the site would be less pronounced. The impacts of light and glare would still occur as the truck parking area would include parking lighting; however, similar to the Project, this impact could be mitigated to a less than significant level. Nevertheless, due to the decreased square footage, the Truck Parking Alternative would have a slightly reduced impact on visual resources when compared to the proposed Project. The significant and unavoidable impact would not be avoided by this alternative.

Agricultural Resources

Because this alternative is located on the same site as the Project and would convert the site from its existing condition to a completely developed urban use, the impacts related to conversion of the site would be similar. All impacts related to agricultural resources would be less-than-significant under the proposed Project and this alternative. Overall, the Truck Parking Alternative would have similar impacts on agricultural resources when compared to the proposed Project.

Air Quality

A CEQA Transportation Analysis was prepared by Kimley Horn on July 22, 2022. The following VMT analysis is based on the CEQA Transportation Analysis prepared by Kimley Horn (See Appendix G for further detail).

Per the City's Draft VMT Policy, Kimley Horn conducted a VMT analysis for automobile (employee) trips only. The purpose of the VMT analysis was to measure the transportation impact of the new development and provide recommended mitigation measures.

The Truck Parking Alternative was reviewed for VMT analysis and was determined to be exempt, because the project alternative would be exclusively used by trucks, which are exempt from VMT analysis (per OPR guidance). The employees that would collect and park trailers would be located at nearby warehouses and would not be assumed to be based at the Truck Parking Alternative project site (Kimley Horn, 2022). Because of this, the Truck Parking Alternative would result in lower mobile emissions than the proposed Project.

Additionally, the construction emissions would be reduced when compared to the Project because a warehouse building would not be constructed. Further, this alternative would result in fewer area emissions because the operational emissions associated with the proposed warehouse would be eliminated. The restroom facility under this alternative would generate fewer area emissions than

the proposed warehouse. Overall, the air quality impacts would be reduced under the Truck Parking Alternative compared to the Project.

Biological Resources

The Truck Parking Alternative would result in development of the Project site. All on-site habitat would be removed by this alternative, similar to the Project. The same mitigation measures required for the proposed Project would be required for this alternative. As such, the Truck Parking Alternative would result in similar impacts to biological resources when compared to the proposed Project.

Cultural and Tribal Resources

The Truck Parking Alternative would result in development of the Project site. This would result in an increased potential to disturb or destroy cultural, historic, and archaeological resources, or paleontological resources. The same mitigation measures required for the proposed Project would be required for this alternative. As such, the Truck Parking Alternative would result in similar impacts to cultural and tribal resources when compared to the proposed Project.

Geology and Soils

Under the Truck Parking Alternative, the amount of developed area would be equal to the Project, but the size of the structure that would be subject to hazardous geological conditions would be reduced from 217,466 sf to 636 sf. While the proposed Project is not anticipated to result in significant impacts from geology and soils with mitigation, the Truck Parking Alternative would result in a reduced potential for impacts when compared to the proposed Project.

Greenhouse Gases, Climate Change and Energy

Under the Truck Parking Alternative, the Project site would be developed with a truck parking facility and a restroom facility. The reduced amount of development would result in a corresponding reduced level of GHG emissions when compared to the proposed Project. As noted previously, the amount of mobile and area emissions would be reduced compared to the Project. Further, construction emissions would be reduced compared to the Project due to the significant reduction in building square footage. As such, the GHG emissions impact would be reduced with this Alternative when compared to the proposed Project.

Hazards and Hazardous Materials

Under the Truck Parking Alternative, the industrial warehouse would not be constructed. This alternative would not use the hazardous materials identified during operation under the proposed Project. Due to the significant reduction in square footage, the amount of hazardous materials brought onto the site during construction and operation would be reduced. As such, this alternative would result in reduced impacts from hazards and hazardous materials impacts when compared to the proposed Project.

Noise

The following analysis is based on the Environmental Noise Assessment prepared by Saxelby Acoustics on July 20, 2022 (see Appendix F).

The nearest residential uses in the vicinity of the project site are located approximately 3,400 feet to the south as measured from the center of the project site. As shown in Figures 5.0-2 and 5.0-3, as provided in Appendix E, the project alternative noise level contours exceeding the City of Tracy of County of San Joaquin noise level standards do not reach these residential uses. Operational noise levels of the project alternative comply with the applicable standards at these residences.

Construction noise levels would also decrease compared to the Project due to the reduced building square footage. Construction noise mitigation identical to the project would be required to ensure construction noise impacts would be less than significant.

Overall, under this alternative, noise impacts would be reduced when compared to the proposed Project and could be less than significant with mitigation.

Transportation and Circulation

As noted previously, the Truck Parking Alternative was reviewed for VMT analysis and was determined to be exempt, because the project alternative would be exclusively used by trucks, which are exempt from VMT analysis (per OPR guidance). The employees that would collect and park trailers would be located at nearby warehouses and would not be assumed to be based at the Truck Parking Alternative project site (Kimley Horn, 2022). As such, the significant and unavoidable VMT impacts resulting from the Project would be avoided by this Alternative. Overall, the Truck Parking Alternative would result in reduced traffic related impacts when compared to the proposed Project.

Utilities and Service Systems

The Truck Parking Alternative would not introduce employment generating uses or housing uses which would increase the demand for utilities. Although a restroom facility would be provided by this alternative, the amount of water demand and wastewater generation would be significantly reduced. Under the proposed Project, impacts related to utilities were determined to be less-than-significant or less-than-significant with mitigation. Under the Truck Parking Alternative, these potential impacts would be reduced, and the Truck Parking Alternative would have a reduced utilities impact when compared to the proposed Project.

REDUCED PROJECT ALTERNATIVE

Aesthetics and Visual Resources

The aesthetics-related impacts would be similar with the Reduced Project Alternative as this alternative is located on the same site and would have similar uses as the proposed Project. However, due to the reduction in developed area and square footage compared to the Project, the changes to the visual character of the site would be less pronounced. The impacts of light and glare would still occur and could be mitigated to a less than significant level. Nevertheless, due to the

decreased developed area and square footage, the Reduced Project Alternative would have a slightly reduced impact on visual resources when compared to the proposed Project. The significant and unavoidable impact would not be avoided by this alternative.

Agricultural Resources

While this alternative would decrease the amount of developed area by 25 percent compared to the Project, approximately 15.69 acres would still be converted from agricultural use. This alternative would slightly reduce the impacts to agricultural uses and adjacent agricultural uses when compared to the proposed Project. Overall, the Reduced Project Alternative would have slightly reduced impacts on agricultural resources when compared to the proposed Project.

Air Quality

Under the Reduced Project Alternative, the Project site would be developed with the same type of industrial use as described in the Project Description, but the industrial square footage and development area would decrease by 25 percent. Trip generation is based on various factors, one of which being building size. Therefore, the amount of vehicle trips generated from the Reduced Project Alternative would be reduced by 25 percent under this alternative. Mobile source air emissions are directly correlated to traffic volume; therefore, it is estimated that the reduced trip volume would result in a reduced amount of mobile source emissions. Additionally, the area source emissions would be reduced when compared to the Project.

Uses in the Reduced Project Alternative would be required to adhere to the same mitigation measures as the proposed Project. The Reduced Project Alternative would result in reduced impacts related to air quality when compared to the proposed Project. The remaining air quality impacts would be less than significant under the proposed Project and the Reduced Project Alternative.

Biological Resources

The Reduced Project Alternative would result in development of approximately 15.69 acres of the Project site. Under this alternative, the 5.23 acres that would not be included in the development area would be located in the southern portion of the site in order to preserve the urban fringe. The preservation of 5.23 acres of the 20.92-acre Development Area would provide greater biological benefits even though the remainder of the Project site would be developed. As such, the Reduced Project Alternative would result in slightly reduced impacts to biological resources when compared to the proposed Project.

Cultural and Tribal Resources

The Reduced Project Alternative would result in development of 75 percent of the Project site. The 5.23 acres that would not be included in the development area for this alternative would be located in the southern portion of the site in order to preserve the urban fringe. It is noted, however, that demolition of the existing structures would be required to accommodate the warehouse building under the proposed Project and this alternative. The reduced development area under this alternative would result in a reduced potential to disturb or destroy cultural, historic, and archaeological resources, or paleontological resources. The same mitigation measures required for

the proposed Project would be required for this alternative. While the proposed Project is not anticipated to result in significant impacts to cultural resources with mitigation, the Reduced Project Alternative would result in a slightly reduced potential for impacts to cultural resources.

Geology and Soils

Under the Reduced Project Alternative, the amount of developed area would be reduced by 25 percent compared to the Project, and the size of structures that would be subject to hazardous geological conditions would be reduced by 25 percent. While the proposed Project is not anticipated to result in significant impacts from geology and soils with mitigation, the Reduced Project Alternative would result in a slightly reduced potential for impacts when compared to the proposed Project.

Greenhouse Gases, Climate Change and Energy

Under the Reduced Project Alternative, the Project site would be developed with the same type of use and structures as the proposed Project, but the amount of building area and developed area would be decreased by 25 percent. The reduced amount of development would result in a corresponding reduced level of GHG emissions when compared to the proposed Project. As such, the GHG emissions impact would be reduced with this Alternative when compared to the proposed Project; however, the less than significant GHG impact would remain under this alternative.

Hazards and Hazardous Materials

Under the Reduced Project Alternative, the type of urban use would not change when compared to the proposed Project, but the amount of development would be reduced by 25 percent. This alternative would require demolition of the existing structures, similar to the proposed Project. Additionally, the Reduced Project Alternative would still use the hazardous materials identified under the proposed Project. However, due to the reduction in square footage, the amount of hazardous materials brought onto the site during construction and operation would be reduced. As such, this alternative would result in slightly reduced impacts from hazards and hazardous materials impacts when compared to the proposed Project.

Noise

The Reduced Project Alternative would result in a reduced amount of industrial uses compared to the Project; therefore, the noise impacts associated with vehicular and operational activities of the proposed Project would be reduced under this alternative. Under this alternative, noise impacts would be reduced when compared to the proposed Project and would be less than significant with mitigation.

Transportation and Circulation

Under the Reduced Project Alternative, the Project site would be developed with the same components as described in the Project Description, but the amount of square footage and developed area would decrease by 25 percent. The reduced amount of industrial uses would result in a reduced amount of vehicle trips generated by the Reduced Project Alternative.

Uses in the Reduced Project Alternative would be required to adhere to the same mitigation measures as the proposed Project. It is likely that the significant and unavoidable VMT impact would remain under this alternative. Overall, the Reduced Project Alternative would result in reduced traffic related impacts when compared to the proposed Project.

Utilities and Service Systems

Under the Reduced Project Alterative, the Project site would be developed with the same components as described in the Project Description, but the amount of square footage and developed area would decrease by 25 percent. Because generation of wastewater and solid waste, and demand for water, directly correlate to building size, his would result in a reduced amount of wastewater, water demand, and solid waste generated from the Project site. Under the Reduced Project Alternative, the total Development Area would decrease from approximately 20.92 acres under the proposed Project to approximately 15.69 acres. This alternative would increase the amount of pervious soils, thereby increasing opportunities for stormwater retention at the Project site. However, uses in the Reduced Project Alterative would be required to adhere to submit a storm drainage plan to the City, similar to the Project. The Reduced Project Alternative would result in reduced demand on utility systems when compared to the proposed Project.

Overall, this alternative would have reduced wastewater treatment demand, reduced water demand, reduced solid waste generated, and reduced storm water runoff when compared to the proposed Project. As such, this alternative would have reduced utilities impacts when compared to the proposed Project.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative be identified among the alternatives that are analyzed in the EIR. If the No Project (No Build) Alternative is the environmentally superior alternative, an EIR must also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). The environmentally superior alternative is that alternative with the least adverse environmental impacts.

Table 5.0-1 presents a comparison of the alternative Project impacts with those of the proposed Project.

As shown in the table, the No Project (No Build) Alternative is the environmentally superior alternative. However, as required by CEQA, when the No Project (No Build) Alternative is the environmentally superior alternative, the environmentally superior alternative among the others must be identified. Therefore, the Truck Parking Alternative and Reduced Project Alternative both rank higher than the proposed Project. The Truck Parking Alternative would have equal impacts in three areas, slightly less impacts in one area, and less impacts in eight areas. The Reduced Project Alternative would have slightly less impacts in six areas and less impacts in five areas. Therefore, the Reduced Project Alternative would be the next environmentally superior alternative. It is noted that the Reduced Project Alternative would not fully meet all of the Project objectives. See Section 5.4 below for a comparative evaluation of the objectives for each alternative.

TABLE 5.0-1: COMPARISON OF ALTERNATIVE PROJECT IMPACTS TO THE PROPOSED PROJECT

ENVIRONMENTAL ISSUE	*NO PROJECT (NO BUILD) ALTERNATIVE*	*TRUCK PARKING ALTERNATIVE*	*REDUCED PROJECT ALTERNATIVE*
Aesthetics and Visual Resources	Less (Best)	Slightly Less (2nd Best)	Slightly Less (3rd Best)
Agricultural Resources	Less (Best)	Equal (3rd Best)	Slightly Less (2nd Best)
Air Quality	Less (Best)	Less (2nd Best)	Less (3rd Best)
Biological Resources	Less (Best)	Equal (3rd Best)	Slightly Less (2nd Best)
Cultural and Tribal Resources	Less (Best)	Equal (3rd Best)	Slightly Less (2nd Best)
Geology and Soils	Less (Best)	Less (2nd Best)	Slightly Less (3rd Best)
Greenhouse Gases, Climate Change and Energy	Less (Best)	Less (2nd Best)	Less (3rd Best)
Hazards and Hazardous Materials	Less (Best)	Less (2nd Best)	Slightly Less (3rd Best)
Noise	Less (Best)	Less (2nd Best)	Less (3rd Best)
Transportation and Circulation	Less (Best)	Less (2nd Best)	Less (3rd Best)
Utilities and Service Systems	Less (Best)	Less (2nd Best)	Less (3rd Best)

GREATER = GREATER IMPACT THAN THAT OF THE PROPOSED PROJECT
LESS = LESS IMPACT THAN THAT OF THE PROPOSED PROJECT
EQUAL = NO SUBSTANTIAL CHANGE IN IMPACT FROM THAT OF THE PROPOSED PROJECT

5.4 COMPARATIVE EVALUATION OF THE ALTERNATIVES' ABILITY TO SATISFY PROJECT OBJECTIVES

This section examines how each of the alternatives selected for more detailed analysis meets the Project objectives.

1. *Construct and operate an industrial warehouse facility within one separate building containing ground-level shipping and receiving truck loading docks that is of sufficient size to efficiently operate for the future tenant.*

The No Project (No Build) Alternative would not satisfy this Project objective because under this alternative, the Project site would remain in its current existing condition and would not provide a an industrial warehouse facility within one building containing ground-level shipping and receiving truck loading docks. The Truck Parking Alternative would also not meet this objective because it would not provide a warehouse building. The Reduced Project Alternative would partially meet this objective because this alternative would provide an industrial warehouse facility within one separate building containing ground-level shipping and receiving truck loading docks that is of sufficient size to efficiently operate for the future tenant; however, because the size of Development Area and the warehouse building would be reduced by 25 percent compared to the Project, the warehouses may not be a sufficient size for the future tenant and, thus, may not fully meet this objective.

2. *Annex the property into the City Limits and develop the site with light industrial uses, consistent with the City's General Plan land use designation for the site.*

The No Project (No Build) Alternative would not satisfy this Project objective because under this alternative, the Project site would not be annexed into the City or developed with light industrial uses. Both the Reduced Project Alternative and the Truck Parking Alternative would meet this objective because under both alternatives the property would be annexed into the City Limits and

the site would be developed with light industrial uses that the City's General Plan already designates the site for. For the Truck Parking Alternative, a truck parking facility is an allowed use under the current General Plan land use.

3. *Locate an industrial Project in an area with nearby access to a regional roadway network.*

The No Project (No Build) Alternative would not satisfy this Project objective because under this alternative, the Project site would remain in its current existing condition and would not locate an industrial Project in an area with nearby access to a regional roadway network. Both the Reduced Project Alternative and the Truck Parking Alternative would meet this objective because both alternatives would locate an industrial Project in an area with nearby access to a regional roadway network.

4. *Ensure that the industrial area along West Schulte Road continues to be developed in a visually pleasing manner.*

The No Project (No Build) Alternative would not satisfy this Project objective because under this alternative, the Project site would remain in its current existing condition and would not be developed. Both the Reduced Project Alternative and the Truck Parking Alternative would meet this objective because both alternatives would develop the industrial area along West Schulte Road in a visually pleasing manner.

5. *Increase contributions to the City's tax base.*

The No Project (No Build) Alternative would not increase contributions to the City's tax base; as such, the No Project (No Build) Alternative would not meet this objective. The Truck Parking Alternative also would not increase contributions to the City's tax base. The Reduced Project Alternative would increase contributions to the City's tax base. However, because the warehouse building would be reduced by 25 percent compared to the Project under the Reduced Project Alternative, the amount of tax contributions under the Reduced Project Alternative would be less than the Project.

6. *Provide site ingress access for trucks from West Schulte to allow for efficient on-site circulation.*

The No Project (No Build) Alternative would not achieve this objective because this alternative would not provide site ingress access for trucks from West Schulte to allow for efficient on-site circulation. The Truck Parking Alternative and the Reduced Project Alternative would meet this objective because both alternatives would provide site ingress access for trucks and allow for efficient on-site circulation.

7. *Complete the Project on schedule and within budget.*

The No Project (No Build) Alternative would not achieve this objective because this alternative would not complete the Project on schedule and within budget. The Truck Parking Alternative and the Reduced Project Alternative would meet this objective because both alternatives could complete the Project on schedule and within budget.

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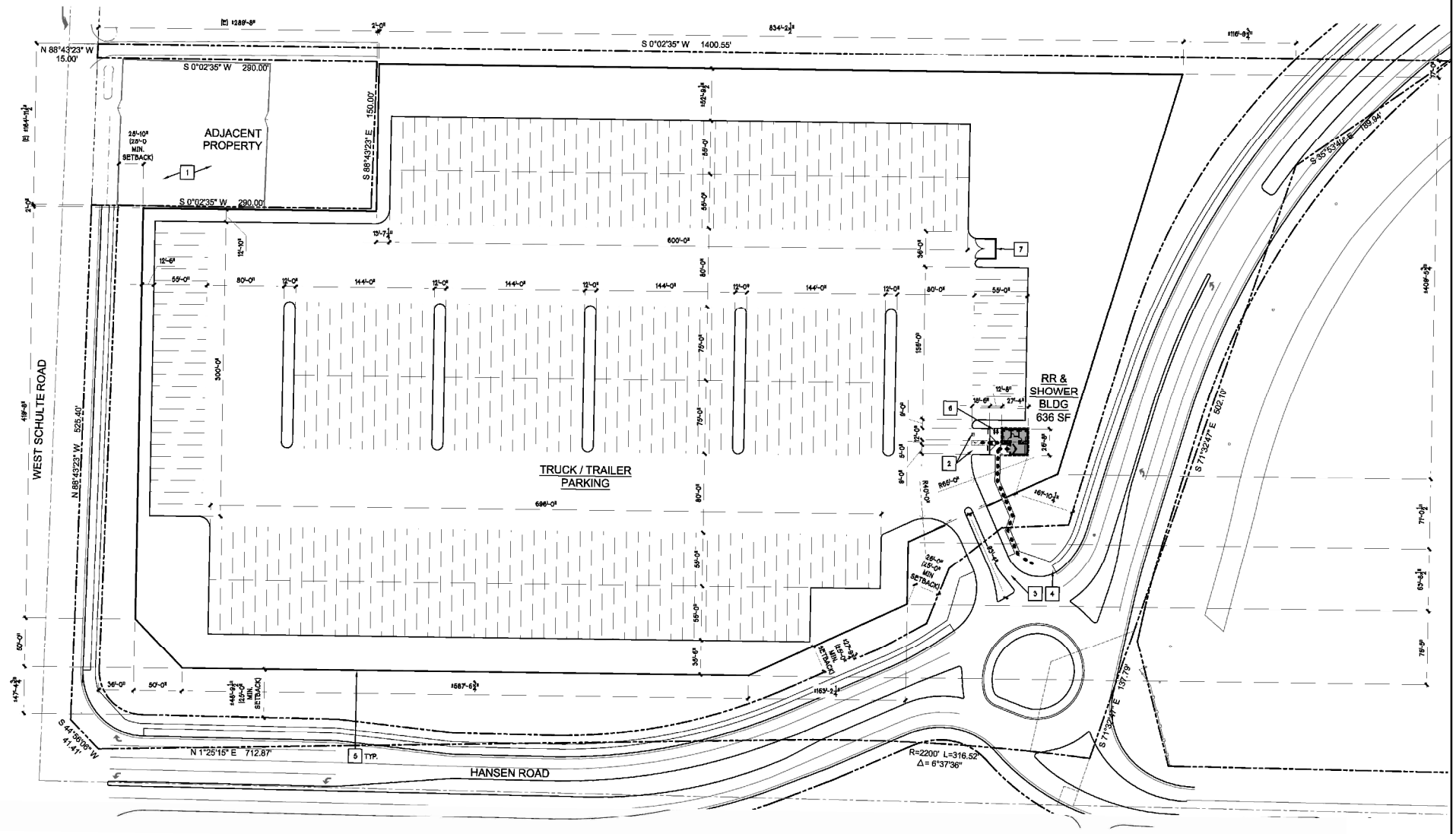

Sources: Vitae Architecture Inc. Map date: September 14, 2022.

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 5.0-1. Truck Parking Alternative

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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Schulte Road Warehouse

San Joaquin County, California

Figure 5.0-2: Truck Parking Alternative Noise Contours (dBA L_{eq})

Noise Level, dB(A)

45 <	<= 47
47 <	<= 49
49 <	<= 51
51 <	<= 53
53 <	<= 55
55 <	

Legend

- Project Building
- Project Boundary

Scale 1:300

0 50 100 200 300 400 feet

SAXELBY ACOUSTICS
Acoustics · Noise · Vibration

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Schulte Road Warehouse

San Joaquin County, California

Figure 5.0-3: Truck Parking Alternative Maximum Noise Contours (dBA L_{max})

Noise Level, dB(A)

65 <	<=	67
67 <	<=	69
69 <	<=	71
71 <	<=	73
73 <	<=	75
75 <		

Legend

- Project Building
- Project Boundary

Scale 1:300

0 50 100 200 300 400 feet

N

SAXELBY ACOUSTICS
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REFERENCES

ATC Group Services LLC. Phase I Environmental Site Assessment of West Schulte Road. ATC Project No. NPPAN20063. November 4, 2020.

Bay Area Air Quality Management District (BAAQMD). 2017. Spare the Air: Cool the Climate. April. San Francisco, CA. Available: http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en

Black Water Consulting Engineers, Inc. Schulte Warehouse Project Sewer Collection System Hydraulic Capacity Analysis. October 12, 2022.

C. Donald Ahrens. 2006. Meteorology Today: An Introduction to Weather, Climate, & the Environment.

California Air Pollution Control Officers Association (CAPCOA). 2010. Quantifying Greenhouse Gas Mitigation Measures. Available: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

California Air Pollution Control Officers Association (CAPCOA). 2016. Air Toxics Hotspot Program. Available: http://www.capcoa.org/wp-content/uploads/2016/08/CAPCOA%20Prioritization%20Guidelines%20-%20August%202016%20FINAL.pdf

California Air Pollution Control Officers Association (CAPCOA). 2023. CalEEMod (v.2022.1). Available: https://www.caleemod.com

California Air Resources Board (CARB). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. Available: https://ww3.arb.ca.gov/ch/handbook.pdf

California Air Resources Board (CARB). 2014. Background Material: Almanac of Emissions and Air Quality 2013 Edition - Chapter 4 Regional Trends and Forecasts. Page last reviewed on February 7, 2014. Available: https://ww3.arb.ca.gov/aqd/almanac/almanac13/chap413.htm

California Air Resources Board (CARB). 2020a. California Greenhouse Gas Emissions for 2000 to 2018. Available: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2018/ghg_inventory_trends_00-18.pdf

California Air Resources Board (CARB). 2020b. Maps of State and Federal Area Designations. Available: https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations

California Air Resources Board (CARB). 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. November 16, 2022. Available: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp_1.pdf

7.0 REFERENCES

California Air Resources Board (CARB). 2022. EMFAC2021 Emissions Inventory. Available: https://arb.ca.gov/emfac/emissions-inventory

California Air Resources Board (CARB). 2022. Area Designations Maps/State and National. Available: https://www.arb.ca.gov/desig/adm/adm.htm

California Air Resources Board (CARB). 2023a. California Ambient Air Quality Standards (CAAQS). Available: http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm

California Air Resources Board (CARB). 2023b. ARB Databases: Aerometric Data Analysis and Management System (ADAM). Available at: https://www.arb.ca.gov/adam/trends/trends1.php

California Air Resources Board (CARB). 2023c. Carbon Monoxide and Health. Available: https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health

California Air Resources Board (CARB). 2023d. GHG Current California Emission Inventory Data. Available: https://ww2.arb.ca.gov/ghg-inventory-data

California Department of Conservation. Williamson Act/Land Conservation Act. Available at: http://www.conservation.ca.gov/dlrp/lca.

California Department of Conservation. 2018. California Important Farmlands Map.

California Department of Conservation, Division of Land Resources Protection, Farmland Mapping and Monitoring Program. 2016-2018. Table A-30: San Joaquin County 2016-2018 Land Use Conversion.

California Department of Education. 2023. DataQuest. Available: http://dq.cde.ca.gov/dataquest/.

California Department of Finance (DOF), Demographics Research Unit. Released May 1, 2020. Report E-5: Population and Housing Estimates for Cities, Counties, and the State, January 2021-2022, with 2020 Benchmark.

California Department of Fish and Wildlife. CNDDB BIOS viewer. Version 5.120.25, Available at: https://apps.wildlife.ca.gov/bios/

California Department of Fish and Game. “Special Plants List.” Natural Diversity Database.

California Department of Fish and Game. “Special Animals List.” Natural Diversity Database.

California Department. of Fish and Game. “Special Vascular Plants, Bryophytes, and Lichens List.” Natural Diversity Database.

California Department of Toxic Substances Control. 2022. DTSC's Hazardous Waste and Substances Site List - Site Cleanup (Cortese List). Available: http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm.

California Department of Toxic Substances Control. 2019. Envirostor Data Management System. Available: http://www.envirostor.dtsc.ca.gov/public/.

California Department of Transportation. 2024. The California Scenic Highway Program. Available: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways.

California Department of Water Resources (DWR). 2016. Best Available Maps (BAM). Available: http://gis.bam.water.ca.gov/bam/.

California Department of Water Resources (DWR). Bulletin 118, California's Groundwater, 2003 Update.

California Department of Water Resources (DWR). 2006. California's Groundwater Bulletin 118. San Joaquin Valley Groundwater Basin. January 20, 2006.

California Department of Water Resources (DWR). 2013. California Water Plan Update 2013 – Advisory Committee Draft. San Joaquin River Hydrologic Region.

California Energy Commission. 2020. Energy Almanac. Available: http://energyalmanac.ca.gov/overview/index.html

California Energy Commission. 2022. California Electrical Energy Generation. Available: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-electrical-energy-generation

California Energy Commission. 2023. Electricity Consumption by County. Available: http://www.ecdms.energy.ca.gov/elecbycounty.aspx

California Environmental Protection Agency. 2010. Climate Action Team Report to Governor Schwarzenegger and the Legislature. December 2010. Available: http://www.climatechange.ca.gov/climate_action_team/reports/

California Geological Survey. 2023. Seismic Shaking Hazards in California Based on the USGS/CGS Probabilistic Seismic Hazards Assessment (PSHA) Model. Available at: http://www.conservation.ca.gov/cgs/rghm/psha

California Geological Survey. 2023. CGS Information Warehouse: Regulatory Maps. Accessed 2023. Available at: https://maps.conservation.ca.gov/cgs/EQZApp/app/

CalRecycle. Solid Waste Information System (SWIS) Facility/Site Search. Available: https://www2.calrecycle.ca.gov/SolidWaste/Site/Search.

CalRecycle. 2023. Jurisdiction Diversion/Disposal Rate Summary (2007 - Current). Available: https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006.aspx.

CalRecycle. 2023. Facility/Site Summary Details: Foothill Sanitary Landfill (39-AA-0004). Available: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/3097.

7.0 REFERENCES

California Water Quality Control Monitoring Council, CalEPA. 2017. 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report) Available: https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

California Water Resources Control Board. GeoTracker database. Accessed 2023. Available at: https://geotracker.waterboards.ca.gov/

Central California Information Center. 2023. California Historic Resources Information System (CHRIS) search.

City of Tracy. 2011. City of Tracy General Plan.

City of Tracy. 2011. City of Tracy General Plan Environmental Impact Report.

City of Tracy. 2013. Citywide Public Facilities Master Plan. Available at: https://www.cityoftracy.org/home/showpublisheddocument/2062/637508002430200000

City of Tracy. 2013. Citywide Public Safety Master Plan. Available at: https://www.cityoftracy.org/home/showpublisheddocument/2070/637508004391500000

City of Tracy. 2023. 2020 Urban Water Management Plan.

City of Tracy. 2019. Tracy Municipal Services Review.

City of Tracy. 2019. Standard Plans (Streets and Utilities). Available at: https://www.ci.tracy.ca.us/documents/Standard_Plans_Streets_Utilities.pdf

City of Tracy. 2019. Standard Plans (Parks and Streetscapes). Available at: https://www.ci.tracy.ca.us/documents/Standard_Plans_Parks_Streetscape.pdf

City of Tracy. 2020. Citywide Storm Drainage Master Plan Update. Available at: https://www.cityoftracy.org/home/showpublisheddocument/2168/637508084509530000

Condor Earth Technologies, Inc. Preliminary Geotechnical Engineering Study – Proposed New One-Story Warehouse Building, 16286 W. Schulte Road [APN: 209-280-250], Tracy, California. December 11, 2020.

Environmental Protection Agency. 2021. National Priorities List (NPL) of Superfund Sites and Proposed NPL Sites.

Environmental Protection Agency. 2021. Toxic Release Inventory (TRI) Program.

Environmental Protection Agency. 2021. Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Search.

Environmental Protection Agency. 2021. Corrective Action Report (CORRACTS).

Environmental Protection Agency. 2021. Resource Conservation and Recovery Information System (RCRIS) Info.

Intergovernmental Panel on Climate Change (IPCC). 2013. "Climate Change 2013: The Physical Science Basis, Summary for Policymakers." Available at: http://www.climatechange2013.org/images/report/WG1AR5_SPM_FINAL.pdf

Kimley-Horn and Associates. Memorandum Re: 16286 West Schulte Road Warehouse - CEQA Transportation Analysis. July 31, 2024.

National Resources Defense Council (NRDC). 2014. NRDC Fact Sheet: California Snowpack and the Drought. April 2014. Available at: https://www.nrdc.org/sites/default/files/ca-snowpack-and-drought-FS.pdf

San Joaquin Air Pollution Control District. 2002. Guide for Assessing and Mitigation Air Quality Impacts. Available at: https://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf

San Joaquin Air Pollution Control District. 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Available at: http://www.valleyair.org/transportation/GAMAQI.pdf

San Joaquin Council of Governments. November 14, 2000. San Joaquin County Multi-Species Habitat Conservation and Open Space Plan.

San Joaquin Council of Governments. 2022. 2022 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Adopted August 2022. Available: https://sjcog.org/608/Adopted-2022-RTPSCS-Plan

San Joaquin County. 2016. San Joaquin County General Plan. Available at: https://www.sjgov.org/commdev/cgi-bin/cdyn.exe/file/Planning/General%20Plan%202035/GENERAL%20PLAN%202035.pdf

San Joaquin County. 2014. San Joaquin County General Plan Draft EIR. Available at: https://www.sjgov.org/commdev/cgi-bin/cdyn.exe/file/Planning/Environmental%20Impact%20Reports/GENERAL%20PLAN%202035%20-%20DRAFT%20EIR.pdf

San Joaquin County Agricultural Commission. 2023. 2022 San Joaquin County Crop Report. Available at: https://www.sjgov.org/department/agcomm/general-info/crop-reports

San Joaquin County Agricultural Commission. 2022. 2021 San Joaquin County Crop Report. Available at: https://www.sjgov.org/department/agcomm/general-info/crop-reports

Saxelby Acoustics. Environmental Noise Assessment – Schulte Road Warehouse. March 16, 2023.

United States Census Bureau. 2023. State and County QuickFacts.

United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). Soil Survey for San Joaquin County, California. 1992.

7.0 REFERENCES

United States Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS). Available at: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

United States Energy Information Administration (U.S. EIA). 2020a. Analysis and Projections. Short-term Energy Outlook. Release date: September 9, 2020. Available at: https://www.eia.gov/outlooks/steo/report/global_oil.php

United States Energy Information Administration (U.S. EIA). 2020b. Table C14. Total Energy Consumption Estimates per Capita by End-Use Sector, Ranked by State, 2019. Available at: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_sum/html/rank_use_capita.html&sid=US

United States Energy Information Administration (U.S. EIA). 2020c. Independent Statistics and Analysis. Frequently Asked Questions. Last updated September 4, 2020. Available at: https://www.eia.gov/tools/faqs/faq.php?id=33&t=6

United States Energy Information Administration (U.S. EIA). 2022. California End-Use Energy Consumption 2020, Estimates. Available at: https://www.eia.gov/beta/states/states/ca/overview

United States Energy Information Administration (U.S. EIA). 2022. California Natural Gas Marketed Production. Available at: https://www.eia.gov/dnav/ng/hist/n9050ca2M.htm

United States Environmental Protection Agency (USEPA). 2016. Commercial Buildings Energy Consumption Survey (CBECS). Available: https://www.eia.gov/consumption/commercial/data/2012/bc/cfm/b2.php

United States Environmental Protection Agency (USEPA). 2017. Sulfur Dioxide Concentrations – EPA. Available: https://cfpub.epa.gov/roe/indicator_pdf.cfm?i=91

United States Environmental Protection Agency (USEPA). 2022a. Health Effects of Ozone Pollution. Available: https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution

United States Environmental Protection Agency (USEPA). 2022b. Health Effects of Ozone In the General Population. Available: https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population

United States Environmental Protection Agency (USEPA). 2022c. Health and Environmental Effects of Particulate Matter (PM). Available: https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm

United States Environmental Protection Agency (USEPA). 2022d. Basic Information About Carbon Monoxide (CO) Outdoor Pollution. Available: https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution

United States Environmental Protection Agency (USEPA). 2022e. Basic Information About Lead Pollution. Available: https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution#how

Wallace-Kuhl & Associates. Preliminary Geotechnical Engineering Report. West Schulte Road Warehouse Project. March 23, 2022.

West Yost. Hydraulic Evaluation of Schulte Warehouse. February 4, 2022.

Wood Rodgers. Storm Drainage for the Schulte Warehouse Project, D21-0020. January 31, 2022

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APPENDIX A

Initial Study, Notice of Preparation, and NOP Comments

INITIAL STUDY / NOTICE OF PREPARATION

FOR THE

SCHULTE ROAD WAREHOUSE PROJECT

DECEMBER 2023

Prepared for:

City of Tracy
Planning Division
333 Civic Center Plaza
Tracy, CA 95376

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

INITIAL STUDY / NOTICE OF PREPARATION

FOR THE

SCHULTE ROAD WAREHOUSE PROJECT

(SCH # 2020080531)

DECEMBER 2023

Prepared for:

City of Tracy
Planning Division
333 Civic Center Plaza
Tracy, CA 95376

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
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NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING

DATE: December 15, 2023

TO: State Clearinghouse
State Responsible Agencies
State Trustee Agencies
Other Public Agencies
Organizations and Interested Persons

SUBJECT: Notice of Preparation of an Environmental Impact Report and Scoping Meeting for the Schulte Road Warehouse Project

LEAD AGENCY: City of Tracy
Planning Division
333 Civic Center Plaza
Tracy, CA 95376

PROJECT PLANNER: Scott Claar, Senior Planner
Scott.Claar@cityoftracy.org
(209) 831-6429

PURPOSE OF NOTICE: This is to notify public agencies and the general public that the City of Tracy, as the Lead Agency, will prepare an Environmental Impact Report (EIR) for the Schulte Road Warehouse Project. The City of Tracy is interested in the input and/or comments of public agencies and the public as to the scope and content of the environmental information that is germane to the agencies' statutory responsibilities in connection with the proposed project. Responsible/trustee agencies will need to use the EIR prepared by the City of Tracy when considering applicable permits, or other approvals for the proposed project.

COMMENT PERIOD: Consistent with the time limits mandated by State law, your input, comments or responses must be received in writing and sent at the earliest possible date, but not later than 5:00 PM, January 16, 2024.

Please send your comments/input (including the name for a contact person in your agency) to: Attn: Scott Claar, Senior Planner, Development Services Department, City of Tracy, 333 Civic Center Plaza, Tracy, CA 95376; or by e-mail to Scott.Claar@cityoftracy.org.

SCOPING MEETING: On Tuesday, January 9, 2024, at 5:00 p.m., the City of Tracy will conduct a public scoping meeting to solicit input and comments from public agencies and the general public on the proposed project and scope of the EIR. This meeting will be held on-line via Microsoft Teams, and interested parties may join the Microsoft Teams scoping meeting to review the proposed project exhibits and submit on-line comments beginning at 5:00 PM. Representatives

from the City of Tracy and the EIR consultant team will be available via the MS Teams scoping meeting to address questions regarding the EIR process and scope. All interested persons may submit statements orally during the meeting by calling the teleconference line at (209) 425-4338, Conference ID 295 015 624 508 or online https://www.microsoft.com/microsoft-teams/join-a-meeting Meeting ID: 295 015 624 508 Passcode: VxSNjk. If you have any questions regarding the scoping meeting, contact Scott Claar, Senior Planner, at (209) 831-6429 or Scott.Claar@cityoftracy.org.

PROJECT LOCATION AND SETTING: The Schulte Road Warehouse project site (project site) is located at 16286 West Schulte Road in unincorporated San Joaquin County, California (see Figures 1 and 2). The project site is within the Tracy Sphere of Influence (SOI) 10-Year Planning Horizon and is immediately adjacent to the Tracy city limits to the north of the site. The project site is identified by Assessor Parcel Numbers (APNs) 209-230-250 and -260. Both parcels would be annexed to the City of Tracy as part of the project. The larger parcel (APN 209-230-250) (the "Development Area") is proposed for development as part of the project. The smaller parcel (APN 209-230-260), referred to as the Williams Communication Parcel, would not be developed as part of the proposed project.

The project site includes two distinct planning boundaries defined below. The following terms are used throughout this Initial Study to describe the planning boundaries within the project site:

- **Project Site** (or **Annexation Area**) – totals 21.92 acres and includes: (1) the proposed 20.92-acre Development Area (APN 209-230-250), and (2) the 1.00-acre Williams Communication Parcel along West Schulte Road (APN 209-230-260), which would not be developed as part of the proposed project.
- **Development Area** – includes a 20.92-acre parcel (APN 209-230-250) that is intended for the development of up to 217,466-square foot (sf) of warehouse and office uses.

The project site is bound by Hansen Road to the west, West Schulte Road to the north, the Delta Mendota Canal to the south, and a private driveway and vacant land on the east. Surrounding land uses include the Cal Fire Station 26 and vacant land to the west, vacant land previously used for agricultural uses to the east, two industrial warehouses to the north, and the Delta Mendota Canal and agricultural land to the south. It is noted that an industrial warehouse Project, the Costco Depot Annexation Project, is currently (as of June 2023) proposed on the adjacent parcel to the east of the Project site. The area north of the project site is part of the Cordes Ranch Specific Plan Area, which is being developed with industrial and commercial uses pursuant to the Cordes Ranch Specific Plan approved by the City in 2013.

PROJECT DESCRIPTION: The proposed project would include demolition of the three single-family residences and six ancillary structures and redevelopment of the Development Area with a one-story, 217,466 square foot (sf) warehouse building and a surface parking lot (see Figure 4). The 217,466-sf warehouse would include 206,593 sf of warehouse uses and 10,873-sf of office space. The City's General Plan land use designation for the project site is Industrial. Specific uses allowed in the industrial category range from flex/office space to manufacturing to warehousing and distribution. Although the tenants of the proposed warehouse are unknown at this time, this

analysis assumes that business operations could occur 24 hours per day. No cold storage facilities or uses are proposed or would be allowed on-site.

The proposed warehouse would include 31 dock level doors on the eastern side of the building. The maximum height of the one-story warehouse would be 42.5 feet, with the majority of the building at 40 feet. The entire project site, including the Development Area and the Williams Communication Parcel, would be annexed into the City as part of the proposed project. Landscaping would be provided throughout the site.

For more details regarding the site access, circulation, and utility improvements, please see the Project Description in the attached Initial Study.

PROJECT APPROVALS: The City of Tracy is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050.

If the City Council certifies the EIR in accordance with CEQA requirements, the City may use the EIR to support the following actions:

- Pre-zone of the property to the City's M-1 zoning district;
- Submittal of a petition to the San Joaquin County LAFCo for annexation of the project site into the City (which requires approval by the LAFCo);
- Development Review Permit approval for building design, landscaping, and other site features;
- Building, grading, and other permits as necessary for project construction;
- Adopting a Mitigation Monitoring and Reporting Program (MMRP); and
- Adoption of a Statement of Overriding Considerations (should any significant and unavoidable impacts result from the project).

The following agencies may rely on the adopted EIR to issue permits or approve certain aspects of the proposed project:

- Regional Water Quality Control Board (RWQCB) – Construction activities must be covered under the National Pollution Discharge Elimination System (NPDES);
- RWQCB – A Storm Water Pollution Prevention Plan (SWPPP) must be approved prior to construction activities pursuant to the Clean Water Act;
- San Joaquin LAFCo – Approval of a petition for annexation of the project site; and
- San Joaquin Valley Air Pollution Control District (SJVAPCD) – Construction activities would be subject to the SJVAPCD codes and requirements.

AREAS OF POTENTIAL IMPACTS: The Draft EIR will examine most of the environmental areas contained in Appendix G of the State CEQA Guidelines. The topics to be addressed in the Draft EIR include: Aesthetics, Agricultural Resources, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gases and Climate Change, Hazards and Hazardous Materials, Noise, Transportation, Tribal Cultural Resources, Utilities, Cumulative Impacts, and Growth Inducing Impacts.

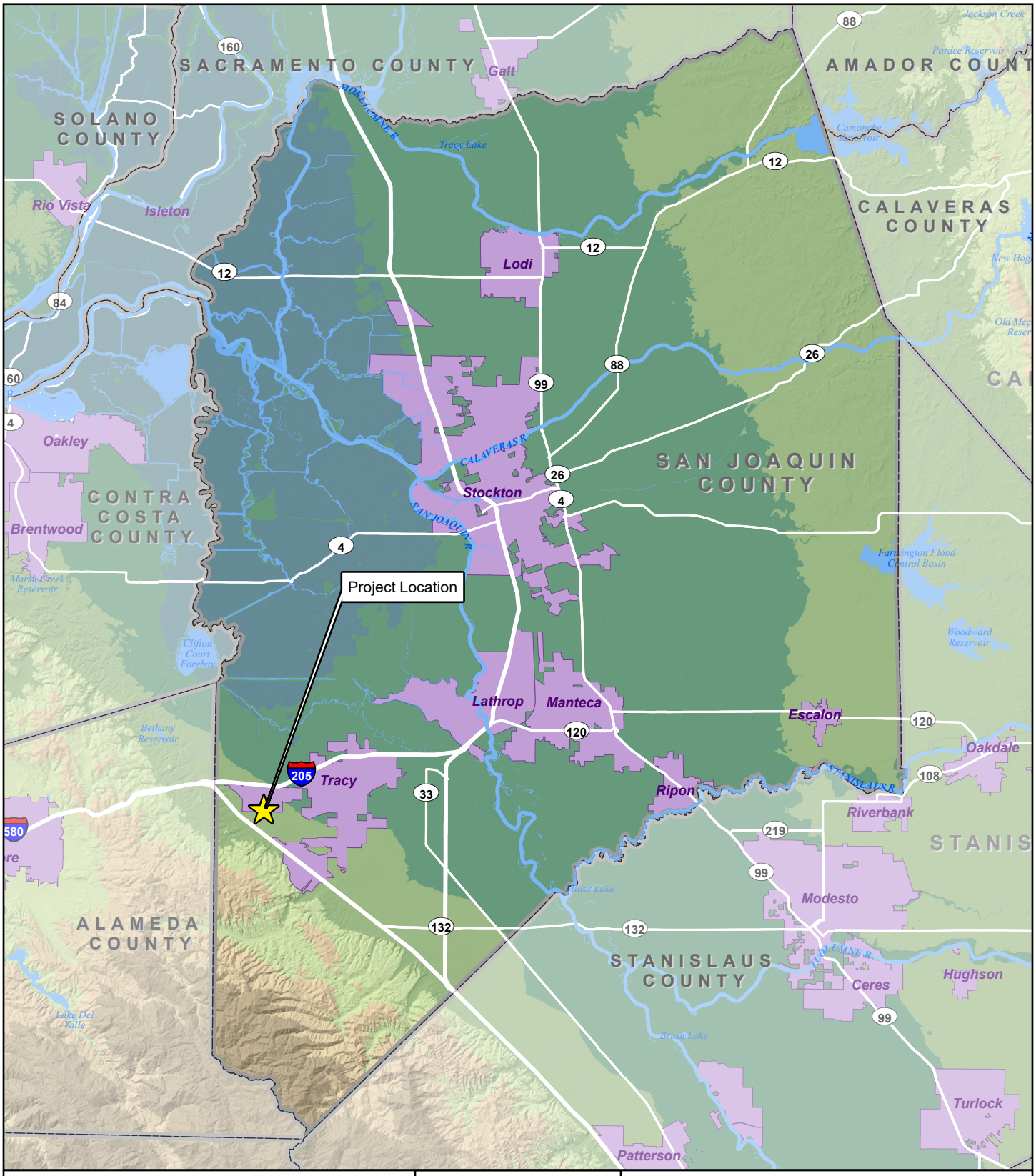
INITIAL STUDY: An Initial Study has been prepared for this project. The Initial Study identifies environmental areas/issues that would result in No Impact or a Less than Significant Impact, and environmental areas/issues that would result in a Potentially Significant Impact. All Potentially Significant Impact areas/issues will be addressed in greater detail in the Draft EIR. Areas/issues that would result in No Impact or a Less than Significant Impact, as identified in the Initial Study, will not be addressed further in the Draft EIR.

ADDITIONAL INFORMATION: A copy of the Initial Study is available on the City's website at: https://www.cityoftracy.org/our-city/departments/planning/specific-plans-environmental-impact-reports-and-initial-studies.

Signature: Scott Claar Date: 12/11/2023

Name/Title: Scott Claar, Senior Planner

Phone/Email: (209) 831-6429 Scott.Claar@cityoftracy.org



LEGEND

- Incorporated Area
- County Boundary

N

0 2½ 5

Miles

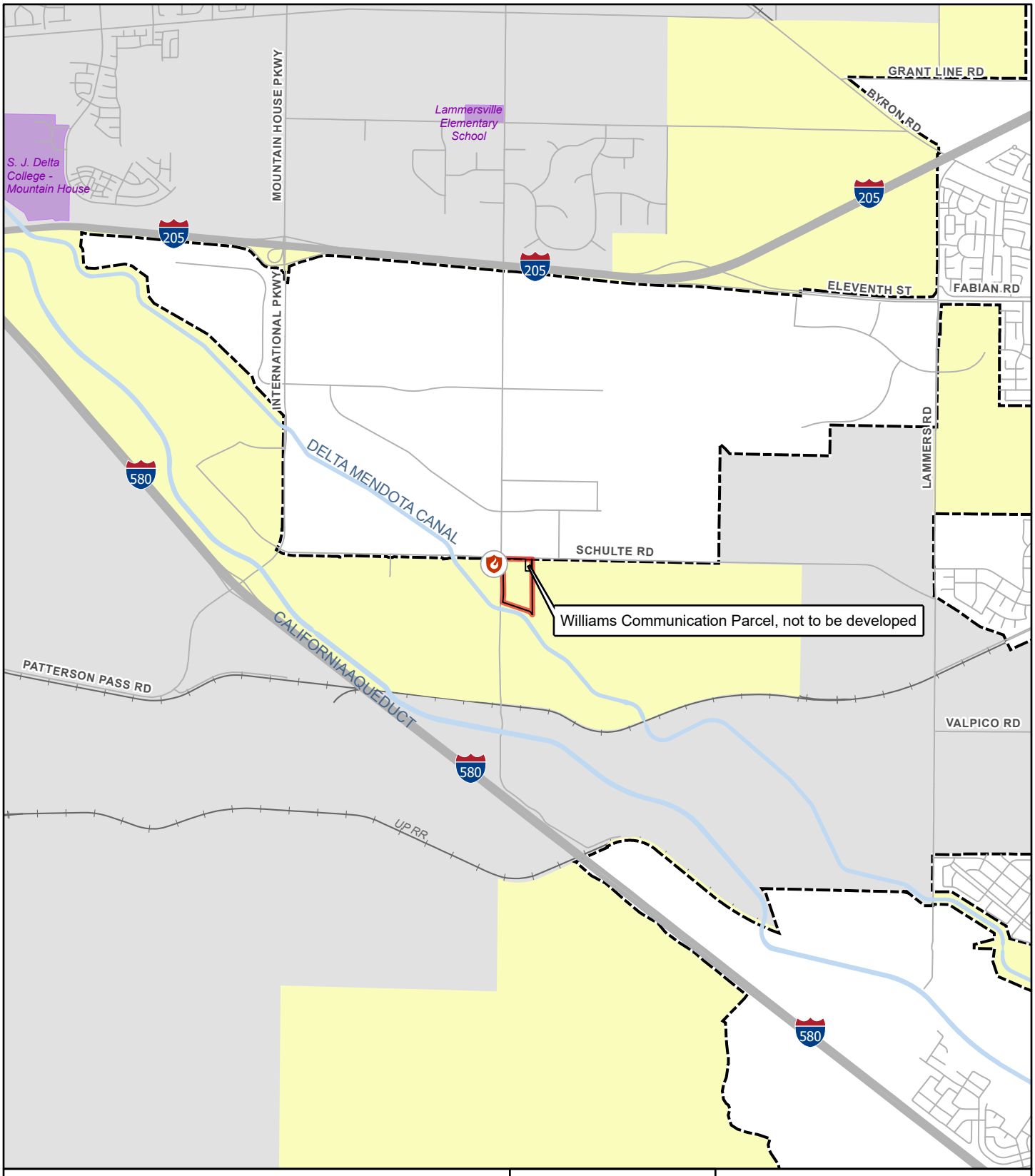
CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 1. Regional Project Location

Sources: San Joaquin County GIS. Map date: December10, 2021

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Path: C:\GIS_00\SanJoaquin\Tracy\SchulteRoad\Tracy\SchulteRoad.aprx



LEGEND

- Project Site/ Annexation Area
- Development Area
- Tracy City Limits
- Tracy Sphere of Influence

Public Facilities

- Schools
- Tracy Fire Department Station #94

Sources: San Joaquin County GIS. Map date: December10, 2021

N

0 ¼ ½

Miles

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 2. Project Vicinity

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

Path: C:\GIS_Q\San Joaquin\Tracy\SchulteRoad\Tracy\SchulteRoad.aprx

LEGEND

- Project Site/ Annexation Area
- Development Area
- Williams Communication Parcel, not to be developed
- Tracy City Limits
- Tracy Sphere of Influence

N

0 400 800

Feet

Sources: San Joaquin County GIS. ArcGIS Online World Imagery Map Service(10/22/2020).
Map date: December10, 2021

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 3. Aerial View of Project Site

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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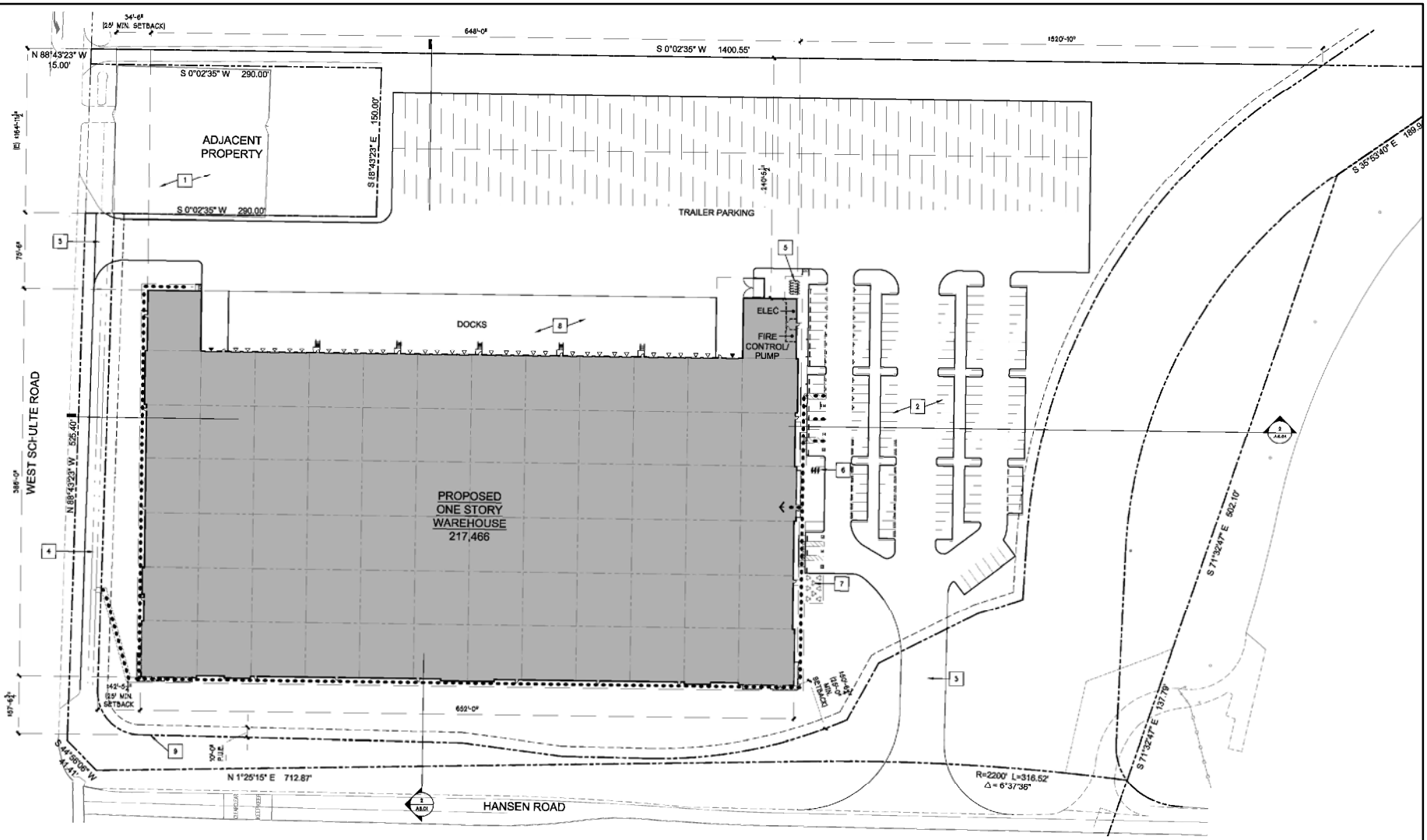

KEYNOTES

1. (E) Adjacent Utility Building & CMU Fence
2. Off-Street Car Parking
3. Driveway
4. Sidewalk
5. (5) Bicycle Lockers (2 stalls each = 10 total stalls)
6. (3) Bicylcle Racks (2 stalls each = 6 total stalls)
7. Outdoor Employee Break Area w/Tables (w/umbrellas) & Chairs
8. Dock Side of Building Utilized as Aerial Apparatus Access Road Grades Less Than 10% at Docks and Grade Level Doors - See Civil Drawings
9. Proposed Property Line

LEGEND

- Property Line
- Accessible path of travel to have a continuous surface, not interrupted by steps or by abrupt changes in level exceeding 1/2" and shall be a minimum of 48" in width per CBC Chapter 11 Division 4. Accessible routes of travel where necessary to change elevation at a slope exceeding 1:20 shall have ramps complying with CBC 11B-405. Walks shall not exceed 1:20 in direction of travel and 1:48 cross slope.

N

0 75 150

Feet

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 4. Site Plan - Proposed Project

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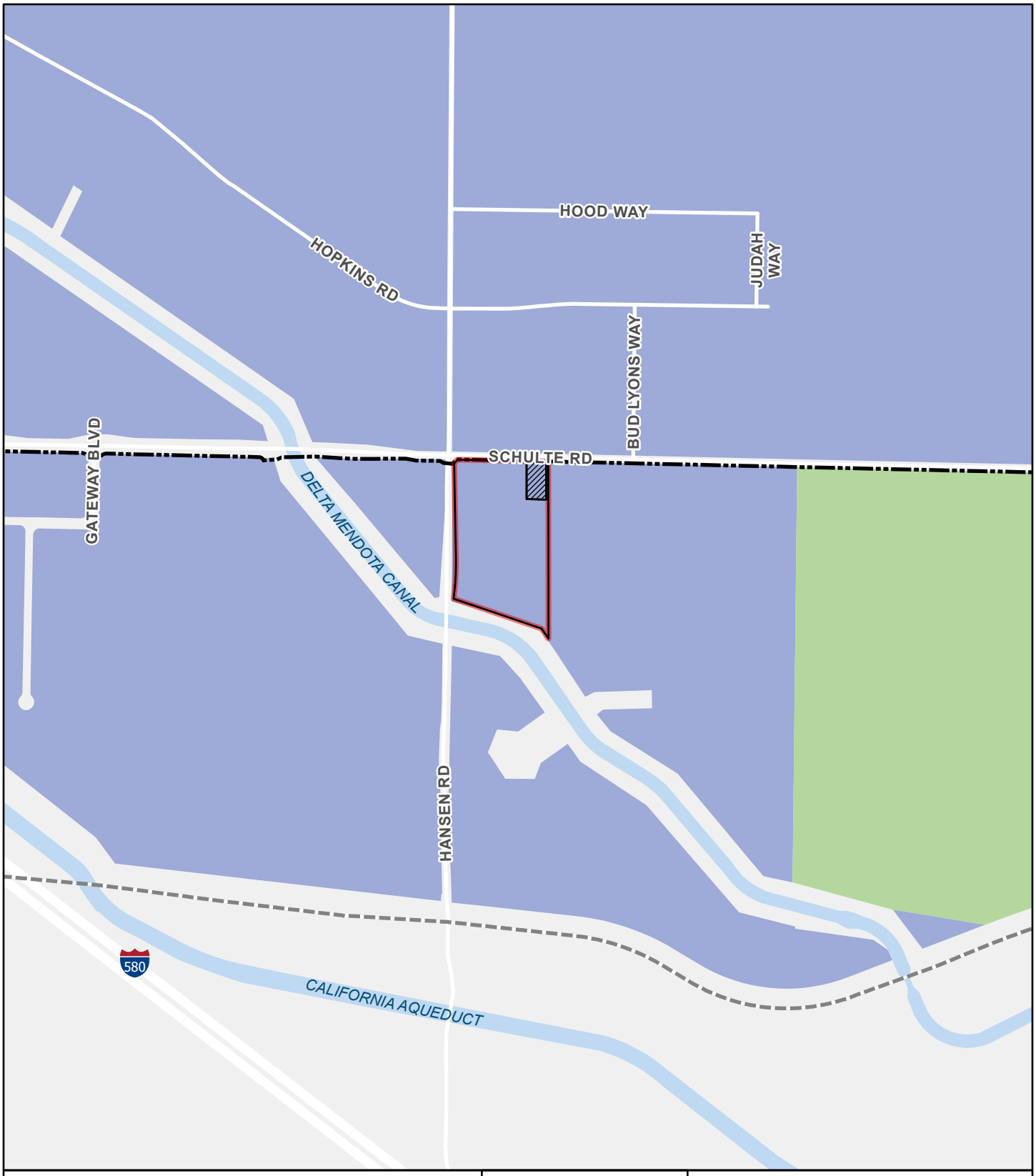
Sources: Vitae Architecture Inc. Map date: June 8, 2023.



LEGEND

- Project Site/ Annexation Area
- Tracy City Limits
- Tracy Sphere of Influence

City of Tracy Land Use

- Industrial
- Park

Development Area

- Development Area
- Williams Communication Parcel, not to be developed

N

0 400 800

Feet

Sources: City of Tracy. San Joaquin County GIS. Map date: December10, 2021

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 5. Existing General Plan Land Use Map

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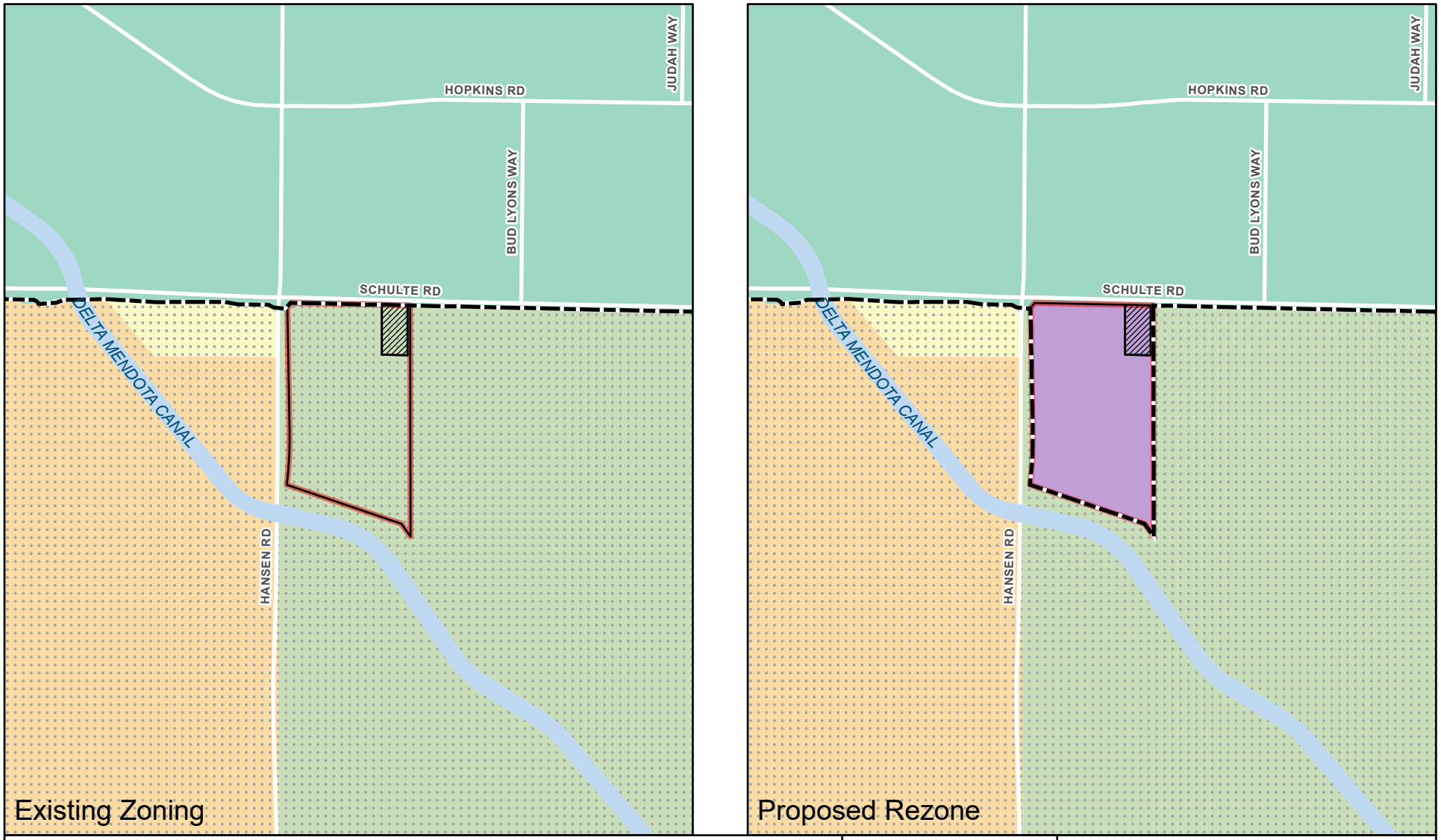

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 6. Existing and Proposed Zoning Map

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INITIAL STUDY CHECKLIST

PROJECT TITLE

Schulte Road Warehouse Project

LEAD AGENCY NAME AND ADDRESS

City of Tracy
Planning Division
333 Civic Center Plaza
Tracy, CA 95376

CONTACT PERSON AND PHONE NUMBER

Scott Claar, Senior Planner
City of Tracy
Planning Division
333 Civic Center Plaza
Tracy, CA 95376
Scott.Claar@cityoftracy.org
(209) 831-6429

PROJECT SPONSOR'S NAME AND ADDRESS

Panattoni Development Company, Inc.
8775 Folsom Boulevard, Suite 200
Sacramento, CA 95826

PROJECT LOCATION AND SETTING

The Schulte Road Warehouse project site (project site) is located at 16286 West Schulte Road in unincorporated San Joaquin County, California (see Figures 1 and 2). The project site is within the Tracy Sphere of Influence (SOI) 10-Year Planning Horizon and is immediately adjacent to the Tracy city limits to the north of the site. The project site is identified by Assessor Parcel Numbers (APNs) 209-230-250 and -260. The larger parcel (APN 209-230-250) is proposed for development as part of the project. The smaller parcel (APN 209-230-260), referred to as the Williams Communication Parcel, would not be developed as part of the proposed project.

The project site includes two distinct planning boundaries defined below. The following terms are used throughout this Initial Study to describe the planning boundaries within the project site:

- **Project Site** (or **Annexation Area**) – totals 21.92 acres and includes: (1) the proposed 20.92-acre Development Area (APN 209-230-250), and (2) the 1.00-acre Williams Communication Parcel along West Schulte Road (APN 209-230-260), which would not be developed as part of the proposed project.

- **Development Area** – includes a 20.92-acre parcel (APN 209-230-250) that is intended for the development of up to 217,466-square foot (sf) of warehouse and office uses.

The project site is bound by Hansen Road to the west, West Schulte Road to the north, the Delta Mendota Canal to the south, and a private driveway and vacant land on the east. Surrounding land uses include the Cal Fire Station 26 and vacant land to the west, vacant land previously used for agricultural uses to the east, two industrial warehouses to the north, and the Delta Mendota

Canal and agricultural land to the south. It is noted that an industrial warehouse Project, the Costco Depot Annexation Project, is currently (as of December 2023) proposed adjacent east of the Project site. The area north of the project site is part of the Cordes Ranch Specific Plan Area.

The southern portion of the Development Area is currently developed with three single-family residences and six ancillary structures (see Figure 3). The remainder of the Development Area consists primarily of ruderal grasses which are regularly disced. The Development Area topography is generally flat, with the exception of two five- to ten-foot historic ponds located along the eastern site boundary. The historic ponds were previously associated with on-site dairy operations and no longer contain water.

The Williams Communications Parcel is currently developed with a low voltage transmission station operated by Williams Communications, Inc. Permanent employees do not exist on-site, and access to the site is limited to maintenance vehicles and maintenance personnel. The use of this parcel as a low voltage transmission station would remain as existing.

PROJECT DESCRIPTION

The proposed project would include demolition of the three single-family residences and six ancillary structures and redevelopment of the Development Area with a one-story, 217,466 sf warehouse building and a surface parking lot (see Figure 4). The entire project site, including the Development Area and the Williams Communication Parcel, would be annexed into the City as part of the proposed project. The project components, including the warehouse building and utilities, and requested entitlements, are discussed in detail below.

WAREHOUSE BUILDING

The 217,466-sf warehouse would include 206,593 sf of warehouse uses and 10,873-sf of office space. The City's General Plan land use designation for the project site is Industrial. Specific uses allowed in the industrial category range from flex/office space to manufacturing to warehousing and distribution. Although the tenants of the proposed warehouse are unknown at this time, this analysis assumes that business operations could occur 24 hours per day. No cold storage facilities or uses will be allowed on-site.

The proposed warehouse would include 31 dock level doors on the eastern side of the building. The maximum height of the one-story warehouse would be 42.5 feet, with the majority of the building at 40 feet. Landscaping would be provided throughout the site.

As part of the current application for the Project, the proposed project would be subject to Development Review Permit approval by the City, during which City staff would ensure that the proposed project would comply with all applicable City regulations including, but not limited to, landscaping and visual screening. Development Review would occur as part of the building design and landscape review.

ACCESS AND CIRCULATION

Site access would be provided by two new driveways: one from the southwest, off of Hansen Road; and one from the north, off of West Schulte Road. The project would also involve improvements to Hansen Road adjacent to the project site, including roadway resurfacing improvements and construction of an interim driveway access to the site off Hansen Road. Additionally, the project would involve improvements to West Schulte Road adjacent to the project site, including roadway resurfacing improvements and sidewalk improvements.

The proposed parking area would include approximately 206 vehicle parking stalls and 116 trailer parking stalls. The vehicle parking area would be located in the southern portion of the site and the trailer parking area would be located in the eastern portion of the site.

UTILITIES

The proposed project would connect to existing City infrastructure to provide water, sewer, and storm drainage utilities. Existing storm drain, sewer, water, and gas lines/pipes are currently located along West Schulte Road.

The project would be served by the following existing service providers:

1. City of Tracy for water;
2. City of Tracy for wastewater collection and treatment;
3. City of Tracy for stormwater collection;
4. Pacific Gas and Electric Company for gas and electricity.

Utility lines within the project site and adjacent roadways would be extended throughout the project site. Wastewater, water, and storm drainage lines would be connected via existing lines along West Schulte Road. The project would also connect to existing electrical and natural gas infrastructure along West Schulte Road.

Stormwater bioretention treatment planters would be located throughout the project site, mainly in the proposed landscaped areas and along Hansen Road and the east property line. Stormwater runoff from each of the drainage areas would be routed to a series of on-site stormwater bioretention treatment planters and treatment/detention basins.

Best management practices (BMPs) will be applied to the proposed development to limit the concentrations of constituents in any site runoff to acceptable levels. Stormwater flows from the project site would be directed to the proposed stormwater treatment basins, treatment planters, and bioretention areas by a new stormwater conveyance system on the project site. Stormwater runoff would not be allowed to discharge directly to the existing storm drains in West Schulte Road without first discharging to the bioretention areas. The landscaping plan includes stormwater treatment plantings in the treatment/detention basins. Additionally, erosion and sediment control measures would be implemented during construction.

GENERAL PLAN AND ZONING

Per the San Joaquin County General Plan, the project site is designated General Agriculture (A/G). Per the City of Tracy General Plan, the project site is designated Industrial (see Figure 5). The proposed project is consistent with the current City General Plan land use designation. Because the project site is located outside of the City limits, the site does not currently have a City zoning designation. The project site is zoned General Agriculture (AG-40) by San Joaquin County (see Figure 6).

The San Joaquin County Local Agency Formation Commission (LAFCo) will require the project site to be pre-zoned by the City of Tracy in conjunction with the proposed annexation. The City's pre-zoning for the project site will be the Light Industrial (M-1) zoning designation. The pre-zoning would go into effect upon annexation into the City of Tracy. In the Light Industrial (M-1) Zone, only industrial activities and uses which are included in the following use groups shall be permitted without a conditional use permit under Section 10.08.4250 of the Tracy Municipal Code: minor public services uses; local public service and utility installations; temporary buildings and uses; crop and tree farming; specialty crops; accessory uses, except recreation

facilities and residences; contract construction; warehousing and storage; small recycling collection facilities; and light manufacturing uses. The proposed project is consistent with the proposed M-1 pre-zoning.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

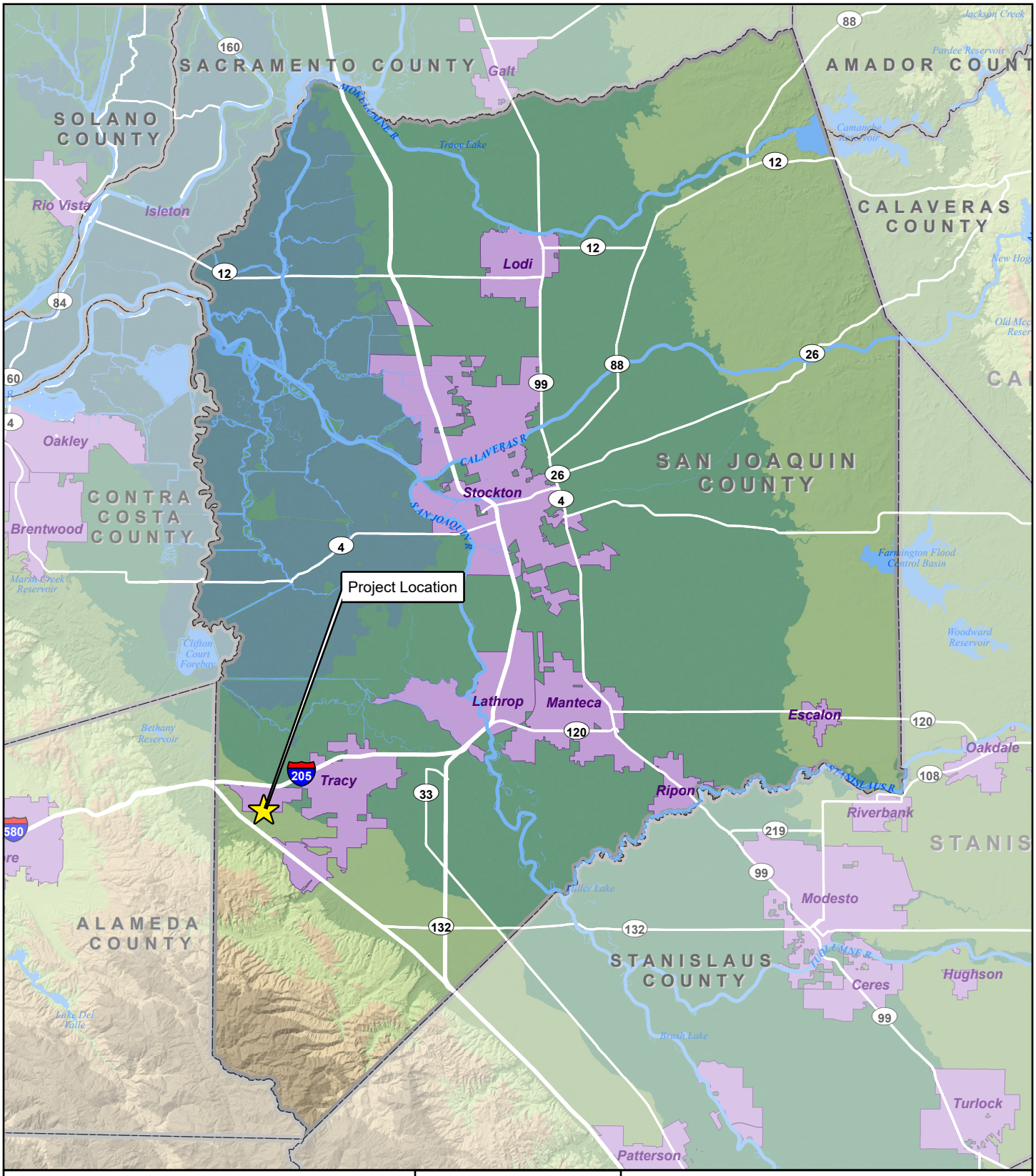
The City of Tracy is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of CEQA, Sections 15050-15051.

If the City Council certifies the EIR in accordance with CEQA requirements, the City may use the EIR to support the following actions:

- Pre-zone of the property to the City's M-1 zoning district;
- Submittal of a petition to the San Joaquin County LAFCo for annexation of the project site into the City (which requires approval by the LAFCo);
- Development Review Permit approval for building design, landscaping, and other site features;
- Building, grading, and other permits as necessary for project construction;
- Adopting a Mitigation Monitoring and Reporting Program (MMRP); and
- Adoption of a Statement of Overriding Considerations (should any significant and unavoidable impacts result from the project).

The following agencies may rely on the adopted EIR to issue permits or approve certain aspects of the proposed project:

- Regional Water Quality Control Board (RWQCB) – Construction activities must be covered under the National Pollution Discharge Elimination System (NPDES);
- RWQCB – A Storm Water Pollution Prevention Plan (SWPPP) must be approved prior to construction activities pursuant to the Clean Water Act;
- San Joaquin LAFCo – Approval of a petition for annexation of the project site; and
- San Joaquin Valley Air Pollution Control District (SJVAPCD) – Construction activities would be subject to the SJVAPCD codes and requirements.



LEGEND

- Incorporated Area
- County Boundary

N

0 2½ 5

Miles

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 1. Regional Project Location

Sources: San Joaquin County GIS. Map date: December10, 2021

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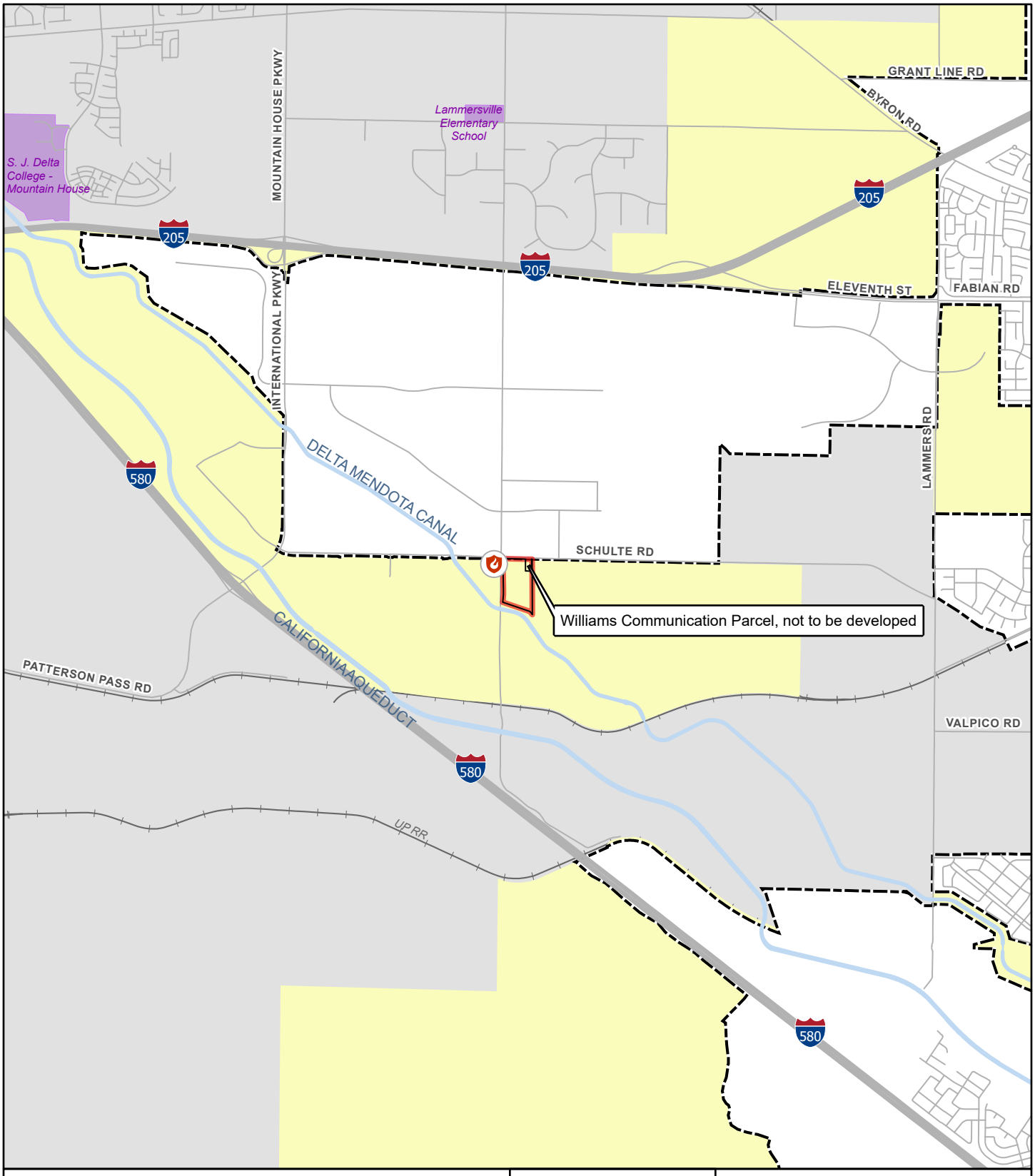

LEGEND

- Project Site/ Annexation Area
- Development Area
- Tracy City Limits
- Tracy Sphere of Influence

Public Facilities

- Schools
- Tracy Fire Department Station #94

Sources: San Joaquin County GIS. Map date: December10, 2021

N

0 ¼ ½

Miles

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 2. Project Vicinity

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LEGEND

- Project Site/ Annexation Area
- Development Area
- Williams Communication Parcel, not to be developed
- Tracy City Limits
- Tracy Sphere of Influence

N

0 400 800

Feet

Sources: San Joaquin County GIS. ArcGIS Online World Imagery Map Service(10/22/2020).
Map date: December10, 2021

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 3. Aerial View of Project Site

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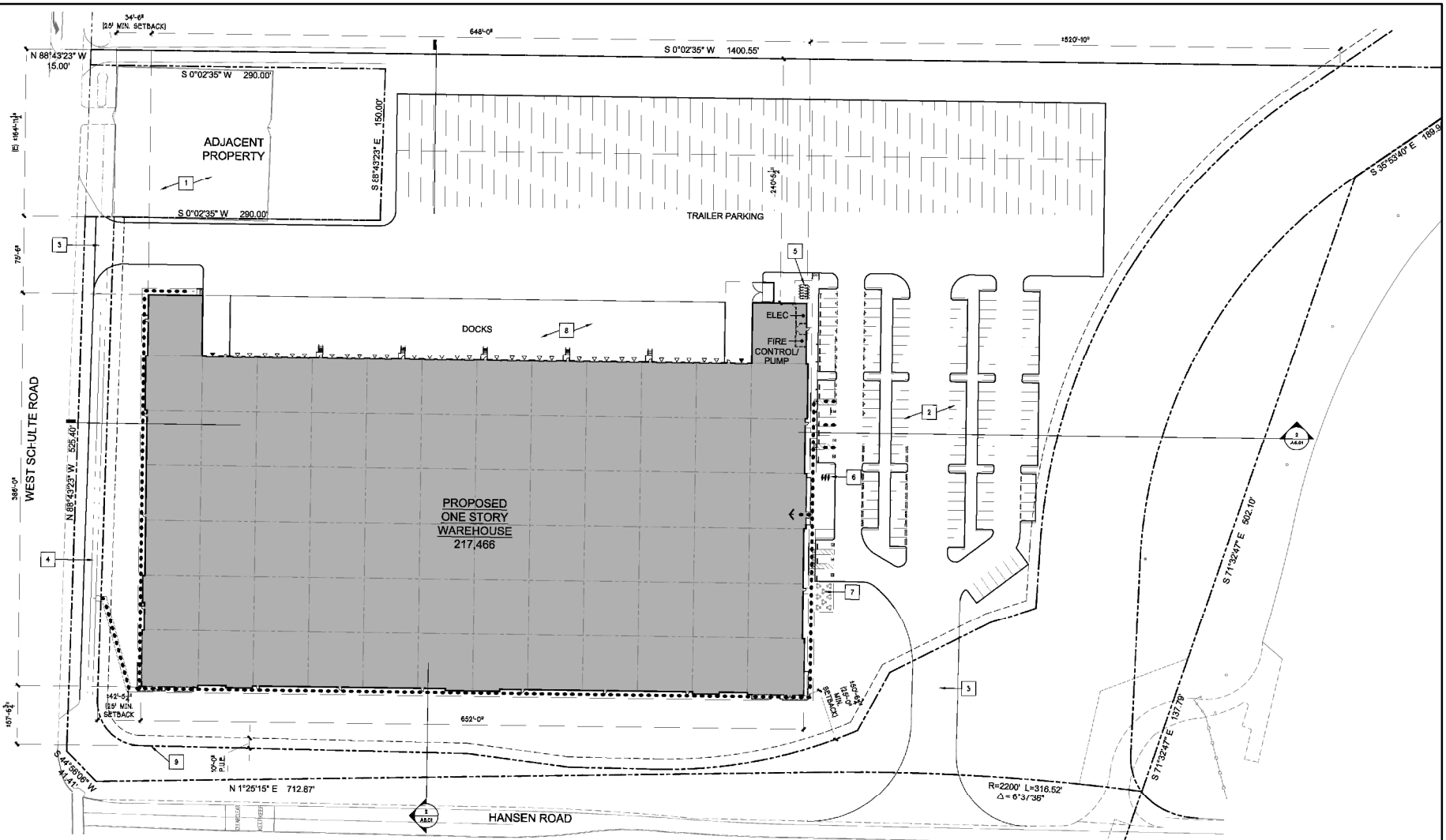

KEYNOTES

1 (E) Adjacent Utility Building & CMU Fence

2 Off-Street Car Parking

3 Driveway

4 Sidewalk

5 (5) Bicycle Lockers (2 stalls each = 10 total stalls)

6 (3) Bicylcle Racks (2 stalls each = 6 total stalls)

7 Outdoor Employee Break Area w/Tables (w/umbrellas) & Chairs

8 Dock Side of Building Utilized as Aerial Apparatus Access Road Grades Less Than 10% at Docks and Grade Level Doors - See Civil Drawings

9 Proposed Property Line

LEGEND

Property Line

Accessible path of travel to have a continuous surface, not interrupted by steps or by abrupt changes in level exceeding 1/2" and shall be a minimum of 48" in width per CBC Chapter 11 Division 4. Accessible routes of travel where necessary to change elevation at a slope exceeding 1:20 shall have ramps complying with CBC 11B-405. Walks shall not exceed 1:20 in direction of travel and 1:48 cross slope.

N

0 75 150

Feet

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 4. Site Plan - Proposed Project

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Sources: Vitae Architecture Inc. Map date: June 8, 2023.

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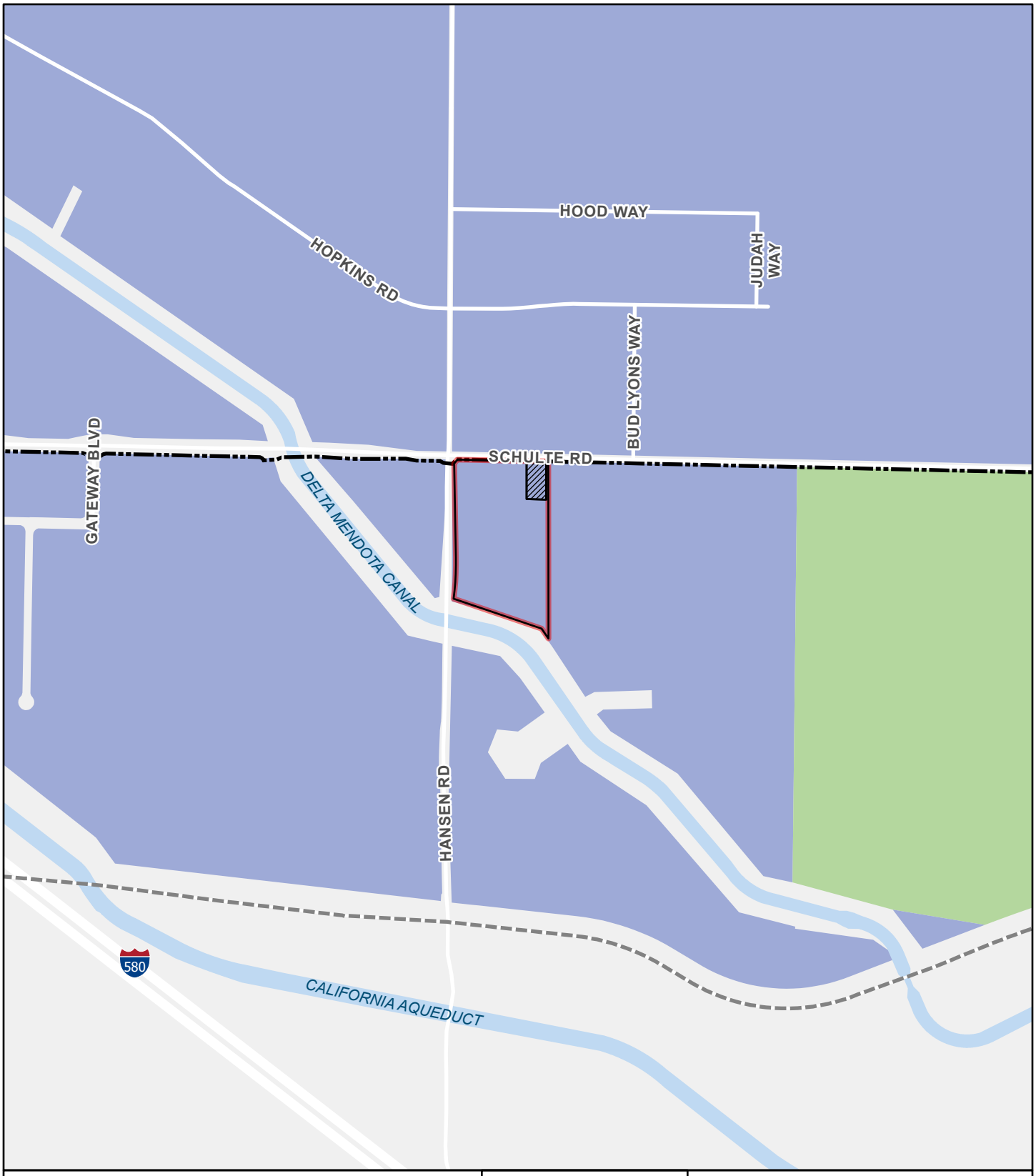

LEGEND

- Project Site/ Annexation Area
- Tracy City Limits
- Tracy Sphere of Influence

City of Tracy Land Use

- Industrial
- Park

Development Area

- Development Area
- Williams Communication Parcel, not to be developed

N

0 400 800

Feet

Sources: City of Tracy. San Joaquin County GIS. Map date: December10, 2021

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 5. Existing General Plan Land Use Map

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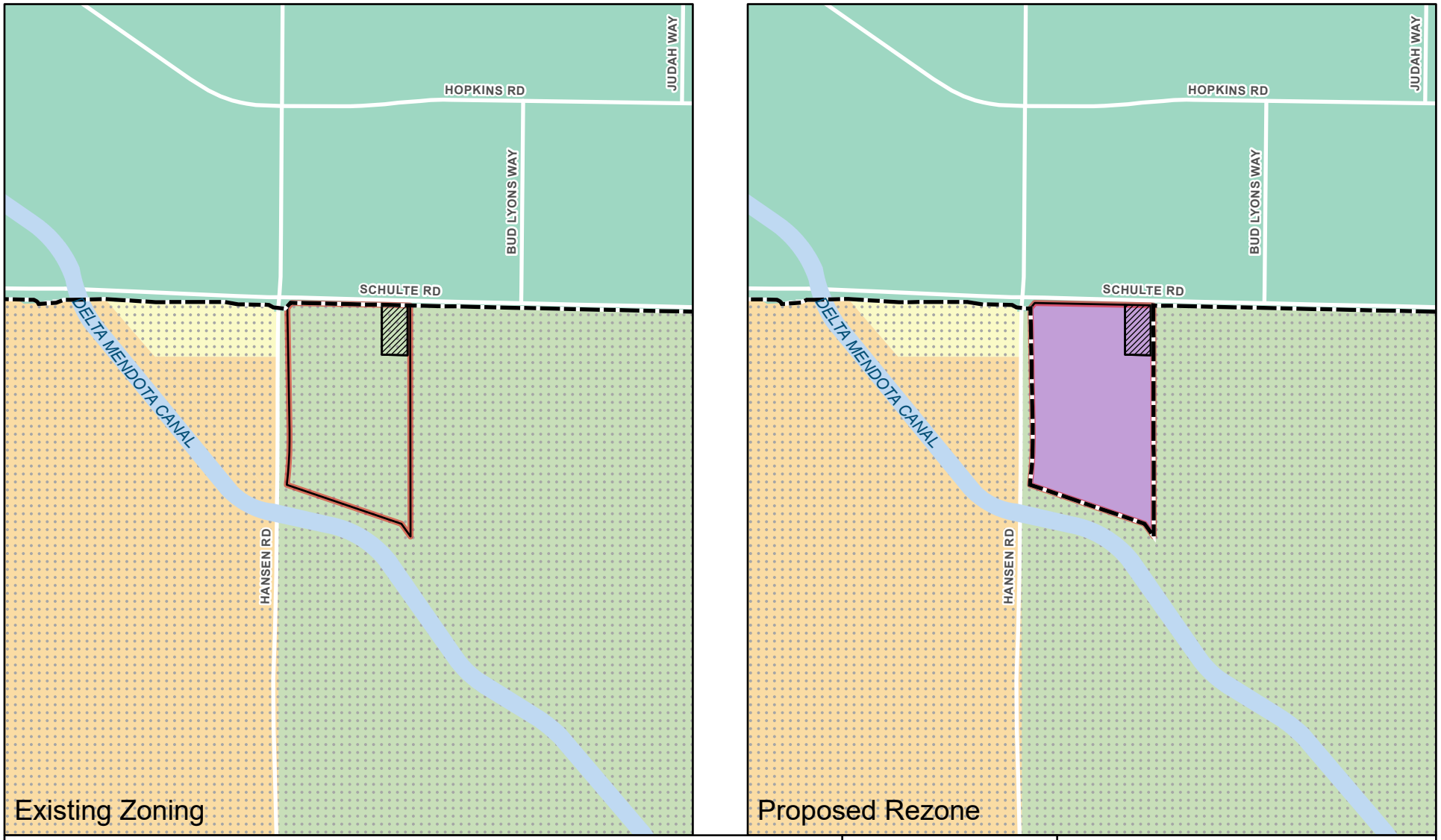

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 6. Existing and Proposed Zoning Map

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

X	Aesthetics	X	Agriculture and Forestry Resources	X	Air Quality
X	Biological Resources	X	Cultural Resources		Energy
X	Geology and Soils	X	Greenhouse Gasses	X	Hazards and Hazardous Materials
	Hydrology and Water Quality		Land Use and Planning		Mineral Resources
X	Noise		Population and Housing		Public Services
	Recreation	X	Transportation	X	Tribal Cultural Resources
X	Utilities and Service Systems		Wildfire	X	Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
X	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Scott Claar — Signature

12/8/2023 — Date

EVALUATION INSTRUCTIONS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9) The explanation of each issue should identify:
    a) The significance criteria or threshold, if any, used to evaluate each question; and
    b) The mitigation measure identified, if any, to reduce the impact to less than significant.

EVALUATION OF ENVIRONMENTAL IMPACTS

In each area of potential impact listed in this section, there are one or more questions which assess the degree of potential environmental effect. A response is provided to each question using one of the four impact evaluation criteria described below. A discussion of the response is also included.

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries upon completion of the Initial Study, an EIR is required.
- Less than Significant With Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- Less than Significant Impact. A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.
- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the project.

ENVIRONMENTAL CHECKLIST

This section of the Initial Study incorporates the most current Appendix "G" Environmental Checklist Form contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 21 environmental topic areas.

I. AESTHETICS

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Have a substantial adverse effect on a scenic vista?	X			
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	X			
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	X			
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	X			

Responses to Checklist Questions

Responses a-d) The proposed project would include demolition of the three single-family residences and six ancillary structures and redevelopment of the Development Area with a one-story, 217,466 sf warehouse building and a surface parking lot, which would alter the existing condition of the site and introduce new sources of light and glare to the site. A scenic vista is generally described as a clear, expansive public view of significant regional features possessing visual and aesthetic qualities of value to the community. The City's General Plan EIR lists the City's scenic resources and vistas that are considered to be local assets, noting public views of the expansive agricultural lands within the City's SOI (i.e., the project site) and views of the Diablo Mountain Range. Additionally, portions of the project site may be visible from Interstate 580 (between Interstate 205 and Interstate 5), an Officially Designated State Scenic Highway located approximately 3,400 feet southwest of the project site.

It has been determined that the potential impacts on aesthetics caused by the proposed project will require a detailed analysis in the EIR. Consequently, the lead agency will examine all of the environmental issues listed in the checklist above (a – d) in the EIR and will decide whether the proposed project has the potential to have a significant impact on aesthetics. At this point, a definitive impact conclusion for each of these environmental topics will not be made. Rather, all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include a visual analysis that presents the methodology, thresholds of significance, a project-level impact analysis, a cumulative impact analysis, and a discussion of feasible

mitigation measures that should be implemented to reduce any potential impacts on aesthetics. The analysis will look at foreground, middle ground, and background views from public vantage points along the perimeter of the project site. The analysis will include photographs from public vantage points, architectural elevations of the buildings, an evaluation of the building materials for reflective values/glare, and an evaluation of the lighting and the potential for light pollution offsite. The EIR will also compare the proposed project to applicable zoning and other regulations related to scenic qualities.

II. AGRICULTURE AND FORESTRY RESOURCES

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	X			
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	X			
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526)?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	X			

Responses to Checklist Questions

Responses a), b), e): According to the California Department of Conservation's Map of the San Joaquin Valley Important Farmland, the project site is designated as Prime Farmland, which will be converted to an industrial use as part of the project. Therefore, it has been determined that the potential impacts on agricultural resources caused by the proposed project will require a more detailed analysis in the EIR. As such, the lead agency will examine each of the potentially significant environmental issues listed in the checklist above in the EIR and will decide whether the proposed project will have a potentially significant impact on agricultural resources. The analysis will include a discussion of potential impacts related to the conversion of the agricultural land to an industrial use, as well as any potential rural-urban agriculture conflicts. At this point, a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will describe the character of the region's agricultural lands, including maps of prime farmlands, other important farmland classifications, and protected farmland (including Williamson Act contracts). The County Agricultural Commissioner's Office and the State Department of Conservation will be consulted and their respective plans, policies, laws, and regulations affecting agricultural lands will be presented within the analysis.

The EIR will include thresholds of significance, a project-level impact analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to offset the loss of agricultural lands and/or Williamson Act cancellations as a result of project implementation.

Response c): The project site is not forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526). The proposed project

would not conflict with existing zoning for, or cause rezoning of, forest land or timberland. Implementation of the proposed project would have ***no impact*** relative to this issue. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response d): The project site is not forest land. The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. Implementation of the proposed project would have ***no impact*** relative to this issue. This topic does not warrant additional analysis and will not be addressed further in the EIR.

III. AIR QUALITY

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?	X			
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	X			
c) Expose sensitive receptors to substantial pollutant concentrations?	X			
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	X			

Existing Setting

The project site is located within the San Joaquin Valley Air Pollution Control District (SJVAPCD). This agency is responsible for monitoring air pollution levels and ensuring compliance with federal and state air quality regulations within the San Joaquin Valley Air Basin (SJVAB) and has jurisdiction over most air quality matters within its borders.

The SJVAPCD has primary responsibility for compliance with both the federal and state standards and for ensuring that air quality conditions are maintained. They do this through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues.

Activities of the SJVAPCD include the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution (i.e., Authority to Construct and Permit to Operate), inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the Federal Clean Air Act and California Clean Air Act.

The SJVAPCD has prepared the *2007 Ozone Plan* to achieve Federal and State standards for improved air quality in the SJVAB regarding ozone. The *2007 Ozone Plan* provides a comprehensive list of regulatory and incentive-based measures to reduce emissions of ozone and particulate matter precursors throughout the SJVAB. The 2007 Ozone Plan calls for major advancements in pollution control technologies for mobile and stationary sources of air pollution. The *2007 Ozone Plan* calls for a 75-percent reduction in ozone-forming oxides of nitrogen emissions.

The SJVAPCD has also prepared the *2007 PM_{10} Maintenance Plan and Request for Redesignation* (2007 PM_{10} Plan). On April 24, 2006, the SJVAPCD submitted a Request for Determination of PM_{10} Attainment for the Basin to the California Air Resources Board (CARB). CARB concurred with the request and submitted the request to the U.S. EPA on May 8, 2006. On October 30, 2006, the EPA issued a Final Rule determining that the Basin had attained the National Ambient Air Quality Standards (NAAQS) for PM_{10}. However, the EPA noted that the Final Rule did not constitute a

redesignation to attainment until all of the Federal Clean Air Act requirements under Section 107(d)(3) were met.

The SJVAPCD has prepared the *2008 PM.2.5 Plan* to achieve Federal and State standards for improved air quality in the San Joaquin Valley Air Basin. The *2008 PM.2.5 Plan* provides a comprehensive list of regulatory and incentive-based measures to reduce PM2.5.

In addition to the *2007 Ozone Plan, the 2008 $PM_{2.5}$ Plan,* and the *2007 PM_{10} Plan*, the SJVAPCD prepared the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI). The GAMAQI is an advisory document that provides Lead Agencies, consultants, and project applicants with analysis guidance and uniform procedures for addressing air quality impacts in environmental documents. Local jurisdictions are not required to utilize the methodology outlined therein. This document describes the criteria that SJVAPCD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for determining whether or not projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. An update of the GAMAQI was approved on March 19, 2015, and is used as a guidance document for this analysis.

The GAMAQI notes that, for CEQA purposes, a sensitive receptor is generically defined as a location where human populations, especially children, seniors, and sick persons are found, and there is reasonable expectation of continuous human exposure according to the averaging period for the Ambient Air Quality Standards (e.g., 24-hour, 8- hour, 1-hour). These typically include residences, hospitals, and schools. Locations of sensitive receptors may or may not correspond with the location of the maximum off-site concentration. The sensitive receptors in the vicinity of the project site include single-family residences located south and southeast of the site. Specifically, the nearest single-family residence is located along Hansen Road approximately 2,500 feet south of the southern site boundary, and another single-family residence is located approximately 3,500 feet southeast of the southeastern corner of the project site.

Responses to Checklist Questions

Responses a-d): Based on the current air quality conditions in the SJVAB, as well as the size of the proposed warehouse building, it has been determined that the potential impacts on air quality caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on air quality. At this point, a definitive impact conclusion for each of these environmental topics will not be made. Rather, all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include an air quality analysis that presents the methodology, thresholds of significance, a project-level impact analysis, a cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce any potential impacts on air quality. The project may result in toxic air contaminants, short-term construction-related emissions, and long-term operational emissions, primarily attributable to emissions from vehicle trips and from energy consumption by the industrial uses. The air quality analysis will include the following:

- A description of regional and local air quality as well as meteorological conditions that could affect air pollutant dispersal or transport in the vicinity of the project site.

Applicable air quality regulatory framework, standards, and significance thresholds will be discussed.

- An analysis of the proposed project's potential to conflict with or obstruct implementation of SJVAPCD's 2015 GAMAQI, and any other applicable air quality plans.
- An analysis of the SJVAPCD Rules and Regulations that are applicable to the proposed project.
- Short-term (i.e., construction) increases in regional criteria air pollutants will be quantitatively assessed. The latest version of the CARB-approved California Emissions Estimator Model (CalEEMod) computer model will be used to estimate regional mobile source and particulate matter emissions associated with the construction of the proposed project.
- Long-term (i.e., operational) increases in regional criteria air pollutants will be quantitatively assessed for area source, mobile sources, and stationary sources. The CARB-approved CalEEMod computer model will be used to estimate emissions associated with the proposed project. Modeling will be provided for the worst-case proposed project land use scenario.
- Exposure to odorous or toxic air contaminants during the project's operational phase will be assessed through an air toxics health risk assessment, utilizing AERMOD and HARP-2 risk modeling software, following guidance as provided by the SJVAPCD and the CARB. Incremental cancer risk for residents and workers, and chronic and acute hazards will be assessed.
- Local mobile-source (carbon monoxide) (CO) concentrations will be assessed through a CO screening method as recommended by the SJVAPCD. If the screening method indicates that modeling is necessary, upon review of the traffic analysis, CO concentrations will be modeled using the California Department of Transportation (Caltrans)-approved CALINE4 computer model.
- The potential for the proposed project to generate objectionable odors on neighboring sensitive receptors will be assessed qualitatively following CARB recommendations.

IV. BIOLOGICAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	X			
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	X			
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	X			
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	X			
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	X			
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	X			

Responses to Checklist Questions

Responses a-f): Based on the documented special status species, sensitive natural communities, wetlands, and other biological resources in the region, it has been determined that the potential impacts on biological resources caused by the proposed project will require a detailed analysis. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on biological resources. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will provide a summary of local biological resources, including descriptions and mapping of plant communities, the associated plant and wildlife species, and sensitive biological resources known to occur, or with the potential to occur in the project vicinity. The analysis will conclude with a project-level impact analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented in order to reduce any significant impacts on biological resources.

V. CULTURAL RESOURCES

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section15064.5?	X			
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	X			
c) Disturb any human remains, including those interred outside of formal cemeteries?	X			

Responses to Checklist Questions

Responses a-c): Based on known historical and archaeological resources in the region, and the potential for undocumented underground cultural resources in the region, it has been determined that the potential impacts on cultural resources caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on cultural resources. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include an overview of the prehistory and history of the area, the potential for surface and subsurface cultural resources to be found in the area, the types of cultural resources that may be expected to be found, a review of existing regulations and policies that protect cultural resources, an impact analysis, and mitigation that should be implemented in order to reduce any significant impacts to cultural resources. In addition, the CEQA process will include a request to the Native American Heritage Commission for a list of local Native American groups that should be contacted relative to this project. The CEQA process will also include consultation with any Native American groups that have requested consultation with the City of Tracy.

VI. ENERGY

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	X			
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	X			

Responses to Checklist Questions

Responses a), b): Appendix G of the State CEQA Guidelines requires consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to Appendix G of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed project would be considered "wasteful, inefficient, and unnecessary" if it were to violate state and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The amount of energy used at the project site would directly correlate to the energy consumption (including fuel) used by vehicle trips generated during project construction, fuel used by off-road construction vehicles during construction, fuel used by vehicles during project operation, and electricity and other energy usage during project operation.

Due to the size of the proposed warehouse building, the potential impacts on energy caused by the proposed project will require a detailed analysis in the EIR. Consequently, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on energy resources. The EIR will include a discussion and analysis that provides calculated levels of energy use expected for the proposed project, based on commonly used modelling software (i.e. CalEEMod v.2016.3.2 and the CARB's EMFAC2014). At this point, a definitive impact conclusion for each of these environmental topics will not be made. Rather, all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

VII. GEOLOGY AND SOILS

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation***	***Less Than Significant Impact***	***No Impact***
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	X			
ii) Strong seismic ground shaking?	X			
iii) Seismic-related ground failure, including liquefaction?	X			
iv) Landslides?	X			
b) Result in substantial soil erosion or the loss of topsoil?	X			
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	X			
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	X			
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	X			

Responses to Checklist Questions

Responses a.i-a.iv), b), c), d), f): It has been determined that the potential impacts from geology and soils will require a detailed analysis in the EIR. As such, the lead agency will examine each of the potentially significant environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact from geology and soils. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include a review of existing geotechnical reports, published documents, aerial photos, geologic maps, and other geological and geotechnical literature pertaining to the site and surrounding area to aid in evaluating geologic resources and geologic hazards that may be present. The EIR will include a description of the applicable regulatory setting, a description of the existing geologic and soils conditions on and around the project site, an evaluation of geologic hazards, a description of the nature and general engineering characteristics of the subsurface conditions within the project site, and the provision of findings and potential mitigation strategies to address any geotechnical concerns or potential hazards.

This section will provide an analysis including thresholds of significance, a project-level impact analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce any significant impacts associated with geology and soils.

Response e): The proposed project would connect to the municipal sewer system for wastewater disposal. Septic tanks or septic systems are not proposed as part of the project. As such, this CEQA topic is not relevant to the proposed project and does not require further analysis. Therefore, there would be ***no impact*** regarding septic tanks or alternative waste water disposal systems. This topic does not warrant additional analysis and will not be addressed further in the EIR.

VIII. GREENHOUSE GAS EMISSIONS

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	X			
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	X			

Responses to Checklist Questions

Responses a), b): Implementation of the proposed project could generate greenhouse gases (GHGs) from a variety of sources, including but not limited to vehicle trips, electricity consumption, water use, and solid waste generation. There could also be additional GHGs generated from stationary sources, such as industrial processes and/or diesel generators. It has been determined that the potential impacts from GHG emissions by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact from GHG emissions. At this point, a definitive impact conclusion for each of these environmental topics will not be made. Rather, all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include a GHG emissions analysis pursuant to the requirements of the California Governor's Executive Order S-3-05 and The Global Warming Solutions Act of 2006 (AB 32), Senate Bill 375 (SB 375), and Senate Bill 32 (SB 32). The analysis will follow the California Air Pollution Control Officers Association (CAPCOA) white paper methodology and recommendations presented in "Climate Change and CEQA", which was prepared in coordination with the CARB and the Governor's Office of Planning and Research (OPR) as a common platform for public agencies to ensure that GHG emissions are appropriately considered and addressed under CEQA. Also, a GHG emissions analysis using the SJVAPCD's two-tiered approach in assessing significance of the project specific GHG emissions increases will be performed. These analyses will consider a regional approach toward determining whether GHG emissions are significant, and will present mitigation measures to reduce any potential impacts. The discussion and analysis will include quantification of GHGs generated by the project using the CalEEMod computer model as well as a qualitative discussion of the project's consistency with any applicable state and local plans to reduce the impacts of climate change.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	X			
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	X			
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	X			
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

Responses to Checklist Questions

Responses a), b), d): It has been determined that the potential impacts on hazards and hazardous materials caused by the proposed project will require a detailed analysis in the EIR. Consequently, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on hazards and hazardous materials. At this point, a definitive impact conclusion for each of these environmental topics will not be made. Rather, all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include a hazards and hazardous materials analysis that presents the methodology, thresholds of significance, a project-level impact analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts on hazards and hazardous materials. The hazards and hazardous materials analysis will include the following:

- A description of the applicable hazards-related federal, state, and local statutes, regulations, and programs that the proposed project would be required to comply with (during project construction and operation).
- An assessment of the existing Recognized Environmental Conditions (RECs) identified for the project site.
- A summary of the past uses of the site.
- An assessment of whether the project site is on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.
- The potential for soil contamination or unknown underground facilities (i.e., underground wells, septic systems, etc.) in the project site.
- An analysis of the uses that are proposed on the project site, and what hazardous materials could be used by the proposed project.

Response c): The proposed project would not emit hazardous emissions or handle hazardous or increase hazardous materials, substances, or waste. The nearest school to the project site is John C Kimball High School (4.1 miles northeast). Therefore, project implementation would have ***no impact*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response e): The project is not located within the airport land use plan area for any airport, including for the Tracy Municipal Airport, which is located approximately seven miles southeast of the project site. Therefore, implementation of the proposed project would have ***no impact*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response f): The project site currently connects to an existing network of City streets. The proposed roadway circulation improvements would allow for greater emergency access relative to existing conditions. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts from project implementation would be considered ***less than significant*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response g): The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The County has areas with an abundance of flashy fuels (i.e. grassland) in the foothill areas of the County. However, the project site is not near steep slopes. Development of the two warehouses would not exacerbate fire risks in the area. The Cal Fire Station 26 is located adjacent west of Hansen Road, west of the project site. The project would not result in development of structures or housing which would subject residents, visitors, or workers to long-term wildfire danger. Additionally, the City's emergency access routes and public information regarding designated facilities and routes are regularly reviewed to ensure that up to date information is available to the City and the public in the event of an emergency. Further, Therefore, impacts from project implementation would be considered ***less than significant*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

X. HYDROLOGY AND WATER QUALITY

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			X	
(i) Result in substantial erosion or siltation on- or off-site;			X	
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			X	
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
(iv) Impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Responses to Checklist Questions

Response a): The proposed project does not contain any drainage connectivity to Waters of the US. A Storm Drainage Technical Memorandum was prepared for the proposed project by Wood Rogers on October 10, 2022, which identifies how the proposed project would mitigate for potential discharges on and near the project site as well as further downstream. The proposed project will not result in intensification of land uses, or the addition of structures or uses that would differ from the current General Plan. In order to ensure that stormwater runoff from the project site does not adversely increase pollutant levels in adjacent surface waters and stormwater conveyance infrastructure, the application of BMPs to effectively reduce pollutants from stormwater leaving the site during both the construction and operational phases of the project are required. As noted in the project description, a SWPPP would be required to be approved prior to construction activities pursuant to the Clean Water Act.

Section 11.34.150, Spill prevention and response plan, of the City's Municipal Code requires that any person subject to a State Industrial Activity Stormwater Permit for stormwater discharge

shall maintain a spill prevention and response plan as part of their SWPPP. Federal regulations at 40 CFR 122.26(b)(14)(i)-(xi) require stormwater discharges associated with specific categories of industrial activity to be covered under NPDES permits (unless otherwise excluded). One of the categories—construction sites that disturb five acres or more—is generally permitted separately because of the significant differences between those activities and the others. The 11 categories of regulated industrial activities are:

- Category One (i): Facilities subject to federal stormwater effluent discharge standards at 40 CFR Parts 405-471
- Category Two (ii): Heavy manufacturing (e.g., paper mills, chemical plants, petroleum refineries, steel mills and foundries)
- Category Three (iii): Coal and mineral mining and oil and gas exploration and processing
- Category Four (iv): Hazardous waste treatment, storage, and disposal facilities
- Category Five (v): Landfills, land application sites, and open dumps with industrial wastes
- Category Six (vi): Metal scrapyards, salvage yards, automobile junkyards, and battery reclaimers
- Category Seven (vii): Steam electric power generating plants
- Category Eight (viii): Transportation facilities that have vehicle maintenance, equipment cleaning, or airport deicing operations
- Category Nine (ix): Treatment works treating domestic sewage with a design flow of one million gallons a day or more
- Category Ten (x): Construction sites that disturb five acres or more (permitted separately)
- Category Eleven (xi): Light manufacturing (e.g., food processing, printing and publishing, electronic and other electrical equipment manufacturing, public warehousing and storage)

The Project would require disturbance of more than five acres and, as such, meets the definition under Category Ten. As such, the Project would be subject to Section 11.34.150 of the Code. As outlined in this Code section, "The methods, procedures, mechanisms and facilities established and utilized for the purpose of preventing accidental discharges or spills of materials with pollution potential shall be provided and maintained at the owner's or person's own cost and expense. The stormwater pollution prevention plan shall outline a spill prevention and response procedure, describe the nature and location of any chemicals stored on the person's premises, and shall contain procedures for immediately notifying the City and preventing adverse impacts of any discharge of chemicals, substances, or materials."

Through compliance with the NPDES permit requirements, and compliance with the SWPPP, the proposed project would not result in a violation of any water quality standards or waste discharge requirements. Therefore, through compliance with the NPDES and SWPPP requirements, the proposed project would result in a ***less than significant*** impact relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response b): A Hydraulic Evaluation was prepared for the proposed project by West Yost on February 4, 2022, and is provided in Appendix A. The Hydraulic Evaluation identified that the City of Tracy currently has sufficient storage capacity in Zones 1 and 2 (existing system operations) and Zone 3 (future alternative system operations) to meet the needs of the proposed project.

The project site is located in the Lower Aquifer of the Tracy Subbasin and the Tracy Subbasin is not designated as a critically overdrafted basin. Much of the groundwater recharge sources within the Lower Aquifer are limited to precipitation and perennial streams. Precipitation in the region is 13.81 inches, most of which falls between November through April. However, only a small portion of this annual rainfall infiltrates the soil and groundwater basin because of the Corcoran Clay underlaying the majority of the Lower Aquifer area. While the proposed project would reduce the amount of pervious surfaces within the project site, the project site is not located within a known recharge area for the Lower Aquifer due to the presence of Capay clay under the project site[1]. Therefore, development of the project site would not substantially interfere with groundwater recharge.

The project site will receive its water from the City of Tracy, which relies on water from the following sources:

- Untreated surface water from the Delta-Mendota Canal (Central Valley Project) that is treated at the City's John Jones Water Treatment Plant;
- Surface water from the Stanislaus River via the South County Water Supply Project delivered by the SSJID;
- Groundwater pumped from the groundwater wells located within the City; and
- Untreated surface water from the Byron Bethany Irrigation District (BBID) pre-1914 rights that is treated at the City's John Jones Water Treatment Plant.

The City's use of groundwater over the last few years has significantly declined, primarily due to the availability of new high-quality surface water supplies.

Overall, impacts from project implementation would be ***less than significant*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Responses c.i)-c.iv): The proposed project would not alter a stream or river. The implementation of the proposed project would result in additional impervious surfaces. As a standard practice required by the Multi-Agency Post Construction Stormwater Standards Manual, the City requires post-project runoff to be equal to or less than pre-project runoff, which would ensure that the proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Under the Multi-Agency Post Construction Stormwater Standards Manual, applicants must submit a Project Stormwater Quality Control Plan (SWQCP) that adequately demonstrates how the proposed Project will implement stormwater treatment control measures for review by City staff as part of its development application. Applicants for Regulated and Hydromodification Management Projects must submit a comprehensive, technical discussion describing compliance with the requirements of this Manual, including proposed site design measures to be implemented, proposed source control measures to be implemented, calculation of the stormwater design volume and/or stormwater design flow and results from the Post-Construction Stormwater Runoff Calculator, proposed stormwater treatment control measures (if necessary), proposed hydromodification control measures, and proposed operations and maintenance plan. The SWQCP for the project is included in Appendix C.

[1] Tracy Subbasin GSAs. June 2020. Draft Tracy Subbasin Groundwater Sustainability Plan: Chapter 4 [Figure 4-33].

Additionally, the project is subject to the requirements of Chapter 11.34 of the Tracy Municipal Code – Stormwater Management and Discharge Control. The purpose of Chapter 11.34 is to *"Protect and promote the health, safety and general welfare of the citizens of the City by controlling non-stormwater discharges to the stormwater conveyance system, by eliminating discharges to the stormwater conveyance system from spills, dumping, or disposal of materials other than stormwater, and by reducing pollutants in urban stormwater discharges to the maximum extent practicable."*

This chapter is intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 USC Section 1251 et seq.), Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) and NPDES Permit No. CAS000004, as such permit is amended and/or renewed.

Pursuant to Section 12.04.040 of the City's Municipal Code, new projects in the City of Tracy are required to provide site-specific storm drainage solutions and improvements that are consistent with the overall storm drainage infrastructure approach presented in the 2012 City of Tracy Citywide Storm Drainage Master Plan (CSDMP). Prior to approval of the improvement plans, a detailed storm drainage infrastructure plan shall be coordinated with the City of Tracy Development Services Department and Utilities Department for review and approval. The proposed project's storm drainage infrastructure plans must demonstrate adequate infrastructure capacity to collect and direct all stormwater generated on the project site to the existing stormwater conveyance system, and demonstrate that the proposed project would not result in on- or off-site flooding impacts.

In order to ensure that stormwater runoff from the project site does not adversely increase pollutant levels in adjacent surface waters and stormwater conveyance infrastructure, or otherwise degrade water quality, a SWPPP would be required per Section 11.34.150 and RWQCB in accordance with the NPDES General Construction Permit requirements. The SWPPP would require the application of BMPs to effectively reduce pollutants from stormwater leaving the site, which would ensure that stormwater runoff does not adversely increase pollutant levels, and would reduce the potential for disturbed soils and ground surfaces to result in erosion and sediment discharge into adjacent surface waters during construction and operational phases of the project.

In order to ensure that stormwater runoff generated at the project site as a result of new impervious surfaces does not exceed the capacity of the existing or planned stormwater drainage system, the project applicant would be required to complete and coordinate a detailed storm drainage infrastructure plan with the City for review and approval. The proposed project's drainage infrastructure plans shall, to the satisfaction of the Engineer, demonstrate adequate infrastructure capacity to collect and direct all stormwater generated on the project site to the City's existing stormwater conveyance system, and demonstrate that the proposed project would not result in on- or off-site flooding impacts.

A Storm Drainage Technical Memorandum for the proposed project was prepared by Wood Rogers on October 10, 2022, which identifies how the proposed project would mitigate for potential discharges on and near the project site as well as further downstream. See Appendix B. Additionally, a Stormwater Quality Control Plan was prepared for the proposed project on January 14, 2022, as provided in Appendix C.

Overall, impacts from project implementation would be ***less than significant*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response d): The project site is not within a 100-year or 200-year flood zone as delineated by FEMA, as provided in Figure 7. Additionally, the project site is not within a tsunami or seiche zone, as provided in Figure 8. Development of the proposed project would not place housing or structures in a flood hazard area. As a result, the proposed project would have ***no impact*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response e): The Water Quality Control Plan for the Central Valley Region and the 2014 Eastern San Joaquin Integrated Water Resources Master Plan (IRWMP) are the two guiding documents for water quality and sustainable groundwater management in the project area. Consistency with the two plans are discussed below.

WATER QUALITY CONTROL PLAN FOR THE CENTRAL VALLEY REGION

The Water Quality Control Plan for the Central Valley Region (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where known.

As discussed above, the project would be required to prepare and implement a SWPPP to effectively reduce pollutants from stormwater leaving the site, which would ensure that stormwater runoff does not adversely increase pollutant levels, and would reduce the potential for disturbed soils and ground surfaces to result in erosion and sediment discharge into adjacent surface waters during construction and operational phases of the project. Additionally, the SWQCP for the project is included in Appendix C, which demonstrates the project incorporates site design measures, landscape features, and engineered treatment facilities (typically bioretention facilities) that will minimize imperviousness, retain or detain stormwater, slow runoff rates, and reduce pollutants in post-development runoff. Overall, impacts related to water quality during construction and operation would be less-than-significant. The proposed project would create new impervious surfaces along Corral Hollow Road. The long-term operations of the proposed project would not result in long-term impacts to surface water quality from urban stormwater runoff.

2014 EASTERN SAN JOAQUIN IRWMP

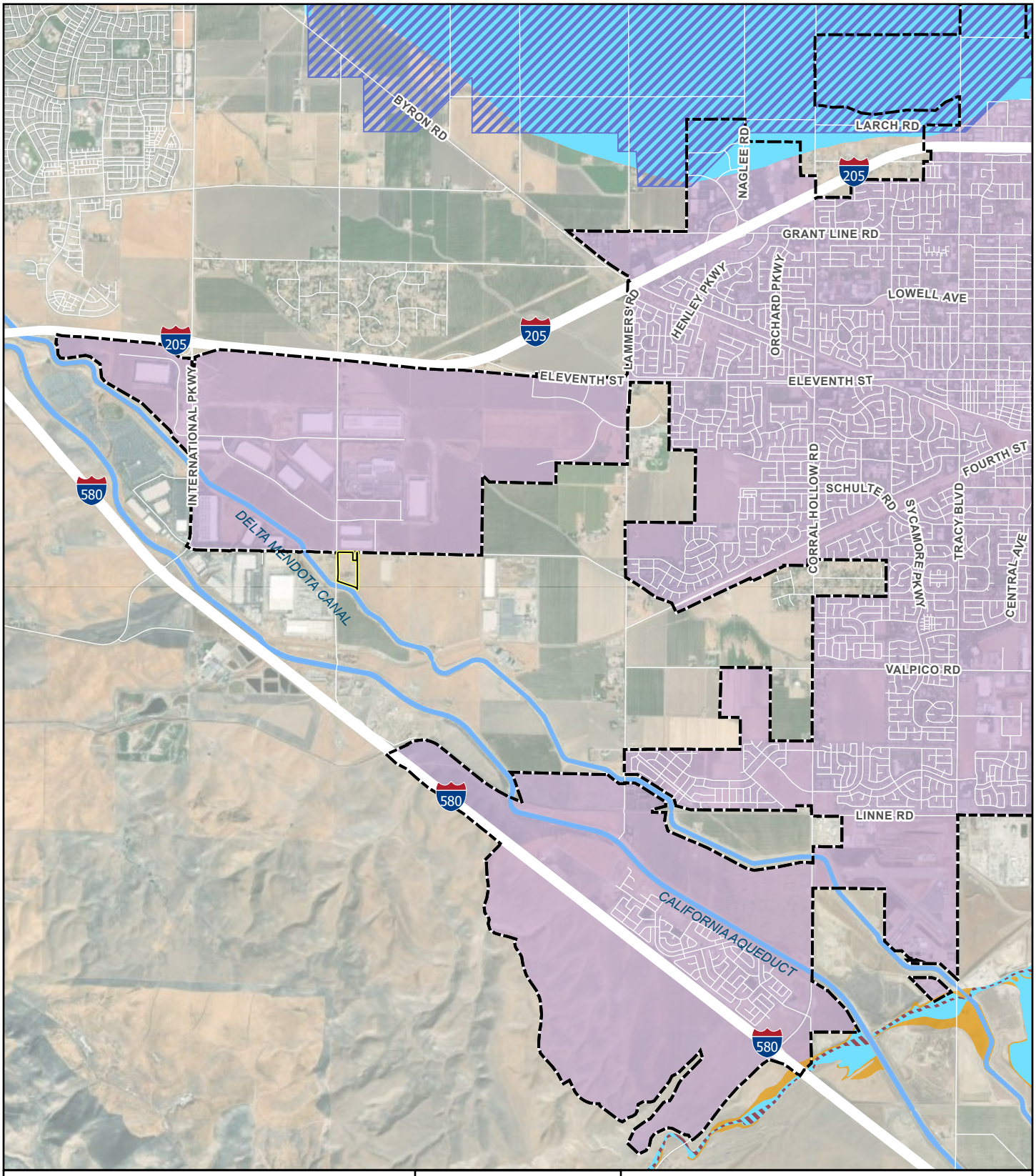
The 2014 Eastern San Joaquin IRWMP defines and integrates key water management strategies to establish protocols and courses of action to implement the Eastern San Joaquin Integrated Conjunctive Use Program. The 2014 Eastern San Joaquin IRWMP is an update and expansion of the 2007 IRWMP prepared for the Eastern San Joaquin Region. There has been significant progress toward implementing the goal of improving the sustainability and reliability of water supplies in the Region, but the process is ongoing and as yet incomplete. The IWRMP does not include requirements for individual projects, such as the proposed project. Instead, the IWRMP

outlines projects to be carried out which achieve regional goals, such as reduced water demand, improved efficiency, improved water quality, and improved flood management.

As discussed previously, the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. The on-site conditions do not allow for significant groundwater recharge, and the Project site is not located within a known recharge area for the Lower Aquifer due to the presence of Capay clay under the Project site. The proposed project would result in new impervious surfaces that could reduce rainwater infiltration and groundwater recharge; however, the 20.92 acre Development Area would include landscaping throughout the site which would maintain opportunities for groundwater recharge. Rainwater which falls on the new impervious surfaces would flow to the adjacent stormwater facilities. Additionally, the proposed project would not substantially interfere with groundwater recharge such that the project would impede sustainable groundwater management of the basin.

CONCLUSION

Overall, implementation of the proposed project would have a ***less than significant*** impact related to conflicts with the Basin Plan and the Groundwater Management Plan. This topic does not warrant additional analysis and will not be addressed further in the EIR.



LEGEND

- Development Area
- Tracy City Limits

USACE Designation

- 200-year Flood Zone

FEMA Designation

- 100-Year Flood Zone
- Regulator Floodway
- 500-Year Flood Zone

N

0 ½ 1

Miles

Sources: FEMA; DWR; San Joaquin County GIS; ArcGIS Online World Imagery Map Service. Map date: December 20, 2021

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 7. FEMA Flood Insurance Rate Map

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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LEGEND

- Development Area
- Tracy City Limits
- Tracy Sphere of Influence
- Maria Dam Inundation Area

N

0 250 500

Feet

Sources: ArcGIS Online World Imagery Map Service; San Joaquin County GIS; DWR Division of Safety of Dams. Map date: December 20, 2021

CITY OF TRACY
SCHULTE ROAD WAREHOUSE PROJECT

Figure 8. Dam Inundation Map

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

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XI. LAND USE AND PLANNING

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

Responses to Checklist Questions

Response a): The project site is located in the southern portion of the City of Tracy and unincorporated San Joaquin County. The project site is adjacent primarily to undeveloped land, and agricultural land. The project site would result in on-site improvements to Hansen Road, including resurfacing improvements access improvements. Development of the project would not result in any physical barriers, such as a wall, or other division, that would divide an existing community, but would serve as an orderly extension of an existing roadway. The project would have ***no impact*** in regards to the physical division of an established community. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response b): Land use plans, policies, and regulations that were adopted to avoid or mitigate and environmental effect include the San Joaquin County General Plan, San Joaquin County Municipal Code, Tracy General Plan, Tracy Municipal Code, San Joaquin LAFCo Policies and Procedures Document, and San Joaquin County Multi-Species Habitat Conservation and Open Space plan (SJMSCP). Consistency with each of these plans, policies, and regulations are discussed below.

SAN JOAQUIN COUNTY GENERAL PLAN AND SAN JOAQUIN COUNTY MUNICIPAL CODE

As noted previously, per the San Joaquin County General Plan, the project site is designated A/G. The project site is zoned AG-40 by San Joaquin County (see Figure 6). The San Joaquin County General Plan and San Joaquin County Municipal Code are the current governing documents for the project site.

The project site is currently within the City of Tracy's SOI 10-Year Planning Horizon. The proposed project would result in the annexation of the Annexation Area into the City of Tracy. This Initial Study analyzes the potential annexation of the parcels into the City of Tracy. Annexation of the project site is consistent with the growth plans for the City of Tracy. The project includes annexation of the entire 21.92-acre Annexation Area. Upon annexation of the project site, the San Joaquin County General Plan and San Joaquin County Municipal Code would not apply to the proposed project.

TRACY GENERAL PLAN

Since general plans often contain numerous policies emphasizing differing legislative goals, a development project may be "consistent" with a general plan, taken as a whole, even though the proposed project appears to be inconsistent or arguably inconsistent with some individual policies. (*Sequoyah Hills Homeowners Association v. City of Oakland* (1993) 23 Cal.App.4th 704, 719.) The proposed project is consistent with the key land use issues and development concepts of the Tracy General Plan which provide for logical growth of the City.

The project site is located adjacent to the city limits, is located within the City's SOI, and will provide for employment-generating uses that will promote employment and economic development. The proposed project is consistent with the General Plan land use policies that encourage an orderly pattern of development that is contiguous with the city limits, require growth to contribute to a diversified economic base, and balance between employment and housing opportunities.

The project site currently has a City General Plan land use designation of Industrial. The proposed project is substantially consistent with the Tracy General Plan land use requirements and would have a ***less than significant*** impact relative to the Tracy General Plan. This topic does not warrant additional analysis and will not be addressed further in the EIR.

TRACY ZONING CODE

The Tracy Zoning Code implements the General Plan. The project site is currently within the jurisdiction of San Joaquin County. The San Joaquin County LAFCo will require the Project site to be pre-zoned by the City of Tracy in conjunction with the proposed annexation. The City's pre-zoning will include the M-1 zoning designation for project site. The pre-zoning would go into effect upon annexation into the City of Tracy. The proposed pre-zoning for the Project site is shown on Figure 6.

This proposed zone change would ensure that zoning would be consistent with the General Plan land use designation within the project site. The zoning ordinance establishes permitted uses, development densities and intensities, and development standards for each zone to ensure that public health, safety, and general welfare are protected, consistent with the purpose of the Tracy Zoning Code. All existing City development standards and zoning requirements for the proposed zoning are applicable to the proposed activities on the project site. The City reviews all plans (improvement plans, building plans, site plans, etc.) that are submitted for final approval to ensure that they are consistent with the City's zoning ordinance. Approval of the pre-zoning by the City would ensure that the proposed project would be consistent with the Zoning Code and will have a ***less than significant*** impact relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

SAN JOAQUIN LAFCO

The project site is currently in an unincorporated portion of San Joaquin County adjacent to the City of Tracy's city limits, within the Tracy SOI (as defined in the Tracy General Plan). The proposed project requires annexation of 21.92acres of the project site into the city limits.

LAFCo is serving as a responsible agency for this EIR pursuant to their *LAFCo Procedures for the California Environmental Quality Act (Adopted June 20, 2007).* When LAFCo is a Responsible Agency under CEQA, in order to approve the annexation, the Commission will certify that it has reviewed the Lead Agency's environmental documents and, if required, adopt findings for approval and statements of overriding considerations in accordance with Sections 15091 and 15903 of the CEQA Guidelines. The City of Tracy will consult LAFCo throughout the entitlement process. The consultation process included sending LAFCo a copy of the Notice of Preparation during the 30-day public review period. LAFCo will also be sent a copy of the Draft EIR during the 45-day public review period and the Final EIR for their use in the annexation process. If the Executive Officer determines that the Draft and Final EIR are adequate for their use, they will prepare, or cause to be prepared, "draft" Findings and Statements, findings for approval, and statements of overriding considerations for LAFCo Commission consideration. If the LAFCo

Commission approves the annexation, the Executive Officer will file a Notice of Determination within five working days after deciding to approve the annexation.

The San Joaquin LAFCo will review the proposed annexation for consistency with the *LAFCo Change of Organization Policies and Procedures (Including Annexations and Reorganizations)*. These policies and procedures govern San Joaquin LAFCo determinations regarding annexations to all agencies. The following policies will be reviewed as part of the annexation process by the San Joaquin LAFCo.

General Standards for Annexation and Detachment

1. Spheres and Municipal Service Reviews:

The City's SOI map identifies the project site as within the SOI and within the 10-year a frame for potential development; therefore, a sphere amendment prior to proceeding with the annexation would not be required.

2. Plan for Services:

This Initial Study assesses service capacity and demands for these services. There are no service deficiencies noted by the City of Tracy or contained within this Initial Study that are anticipated to occur after installation of infrastructure. The Annexation Area is within the Tracy SOI as defined by LAFCo and the City and was assumed for industrial development in the City's 2019 Municipal Service Review.

3. Contiguity:

The Annexation Area is contiguous to the Tracy city limits along the northern boundary of the project site.

4. Development within Jurisdiction:

The Annexation Area is within the SOI and lands within the project site are designated for development under the General Plan. However, agricultural resources are located adjacent to the Annexation Area. There are no Williamson Act contracts on or adjacent to the Project site. However, the Department of Conservation Farmland Mapping and Monitoring Program (FMMP) delineates Important Farmland adjacent to the project site and the project site as Farmland of Local Importance and Semi-Agricultural and Rural Commercial Land. The Annexation Area is not designated by the City of Tracy for agricultural uses. However, the San Joaquin County General Plan designated the project site for agricultural uses. The proposed project would result in the development of existing open space lands for non-open space uses. The San Joaquin LAFCo does not impose agricultural mitigation requirements for the conversion of agricultural land to urban uses related to annexations or other applications.

Impacts related to the development of existing open space lands were analyzed in the Tracy General Plan EIR. The General Plan EIR determined that impacts would be significant and unavoidable. According to the General Plan EIR, although City and County policies would support continued agricultural uses and would require urban development to fund agricultural conservation easements and other programs, no additional feasible mitigation is available.

5. Progressive Urban Pattern:

The Annexation Area is within the SOI and is designated for urban development under the General Plan. The proposed project would develop the Annexation Area (adjacent to the Tracy city limits) and would continue the pattern of urbanization.

6. Piecemeal Annexation Prohibited:

Annexation of the project site is contiguous with the city limits.

7. Annexations to Eliminate Islands:

The proposed annexation includes lands contiguous with the current city limits and parcels within the SOI. Parcels proposed for annexation do not involve the elimination of islands.

8. Annexations that Create Islands:

The proposed annexation includes lands contiguous with the current city limits and parcels within the SOI. Parcels proposed for annexation would not involve the creation of an island of unincorporated territory.

9. Substantially Surrounded:

As previously stated, the proposed annexation does not involve island annexation. Therefore, this policy is not relevant to the proposed annexation.

10. Definite and Certain Boundaries:

The proposed annexation boundaries are definite and certain and conform to lines of ownership.

11. Service Requirements:

The proposed annexation is not merely to facilitate the delivery of one or a few services to the determent of the delivery of a larger number of services or service more basic to public health and welfare. As stated further in Section XV (Public Services and Recreation) and Section XIX (Utilities and Service Systems), the City has adequate service capacity to serve the proposed project without reducing the adequacy of services elsewhere. Therefore, the proposed annexation is consistent with this policy.

12. Adverse Impact of Annexation on the Other Agencies:

This Initial Study includes an assessment of the impacts of the proposed project and proposed annexation on service agencies. The proposed industrial development and the proposed annexation would not result in any significant, adverse impacts to any of the service agencies such that it would seriously impair operation.

13. District's Proposal to Provide new, different, or Divestiture of a Particular Function or Class of Services:

This policy relates to proposals for new, different, or divestiture of services, which is not relevant to the proposed annexation.

14. Disadvantaged Unincorporated Communities:

The project area is not within or contiguous to an area designated as a DUC. This policy is not relevant to the proposed annexation.

City Annexations

1. Annexation of Streets:

The proposed Annexation Area would be annexed into the City, including all proposed streets and roadways.

2. Pre-zoning Required:

The proposed project includes the adoption of pre-zoning for the Annexation Area, which will serve to regulate the uses of land and structures within the project site. The City's pre-zoning will include the M-1 zoning designation for project site. The proposed project will be subject to the development standards as described in the Municipal Code. The Municipal Code is proposed to ensure consistency between land use and zoning designations. The proposed annexation is consistent with this policy.

The policies discussed above are intended to ensure orderly reorganization to local jurisdictional boundaries, including annexations. Ultimately, LAFCo will determine whether the proposed annexation would first require an update to the Tracy *Municipal Service Review* (2019) in order to approve the annexation. This LAFCo policy was not specifically adopted to avoid or mitigate an environmental effect, rather it is intended to ensure orderly and logical reorganization to local jurisdiction boundaries, including annexations. The proposed project is consistent with LAFCo policies adopted to address environmental impacts, with the exception of impacts to agricultural lands. Section II (Agricultural Resources) addresses impacts related to conversion of agricultural land. As such, implementation of the proposed project will have a ***less than significant*** impact relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

SAN JOAQUIN COUNTY MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN

The City's participation in the SJMSCP allows projects within Tracy's jurisdiction to seek coverage under the SJMSCP for impacts to endangered, threatened, and species of special concern. The SJMSCP provides a process to offset impacts to biological resources, conserve open space, maintain the agricultural economy, and allow development within the County. It was also created to obtain the necessary permits from the U.S. Fish and Wildlife Service and the California Department of Fish and Game for the next 50 years in exchange for participating projects paying mitigation fees. Fees are based on the amount and quality of land converted from agricultural or open space uses to urban uses. These fees are used to preserve and create habitats to be managed in perpetuity through the establishment of habitat preserves. Ninety-seven species are covered under the SJMSCP, with the intent to provide comprehensive mitigation pursuant to local, state, and federal regulations for impacts on these species from permitted activities under the Plan. Participation in the SJMSCP confers authorization for activities that result (or may result in) incidental take of covered state-listed species, federally listed species, and other covered.

Prior to issuance of grading permits, the project applicant will be required to coordinate with San Joaquin Council of Governments (SJCOG) and will be responsible for the appropriate coverage, permits, compensatory mitigation or fees, and project-specific avoidance, minimization, and

mitigation measures as defined within the SJMSCP. The proposed project does not conflict with the implementation of the SJMSCP and has appropriate measures to ensure compliance with payment of mitigation fees. It is noted that the project's requirements under the SJMSCP will be further discussed in the Draft EIR.

Overall, implementation of the proposed project would have a ***less than significant*** impact relative to compliance with the SJMSCP. This topic does not warrant additional analysis and will not be addressed further in the EIR.

XII. MINERAL RESOURCES

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			X	

Responses to Checklist Questions

Responses a)-b): As described in the Tracy General Plan EIR, the main mineral resources found in San Joaquin County, and the Tracy Planning Area, are sand and gravel (aggregate), which are primarily used for construction materials like asphalt and concrete. According to the California Geological Survey (CGS) evaluation of the quality and quantity of these resources, the most marketable aggregate materials in San Joaquin County are found in three main areas:

- In the Corral Hollow alluvial fan deposits south of Tracy
- Along the channel and floodplain deposits of the Mokelumne River
- Along the San Joaquin River near Lathrop

Figure 4.8-1 of the General Plan EIR identifies Mineral Resource Zones (MRZs) throughout the Tracy Planning Area. The project site is located within an area designated as MRZ-2. The MRZ-2 designation applies to areas containing mineral resources. The project site is not used for mineral extraction. The project site fronts a newly proposed development project (Tracy Hills) that has recently obtained entitlements for the construction. The purpose of the project is to develop a new warehouse facility and associated improvements. As such, mineral extraction in the project area near existing and future residential and other urban uses is highly unlikely. Therefore, the project would not result in the loss of availability of a known mineral resource. This impact is considered ***less than significant***. This topic does not warrant additional analysis and will not be addressed further in the EIR.

XIII. NOISE

Would the project result in:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X			
b) Generation of excessive groundborne vibration or groundborne noise levels?	X			
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Responses to Checklist Questions

Responses a)-b): Based on existing and projected noise levels along roadways, and the potential for noise generated during project construction and operational activities, it has been determined that the potential impacts from noise caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine each of the two potentially significant environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact from noise. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather both are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will identify sensitive receptors, noise impacts, and attenuation of noise related impacts. The noise study will also include an assessment of construction noise and vibration impacts. The noise analysis will identify the noise level standards contained in the City of Tracy General Plan Noise Element and Municipal Code (Noise Control Ordinance, Chapter 4.12 Article 9), as well as any germane state, and federal standards. Continuous (24-hour) and short-term noise measurements will be performed in the project site and in the project vicinity in order to quantify existing ambient noise levels from existing community noise sources.

The EIR will provide an estimate of existing traffic noise levels adjacent to the project site roadways through application of accepted traffic noise prediction methodologies. Noise sources from the project will be quantified through noise level measurements. Proposed on-site mobile and stationary noise sources will be evaluated. This will include noise generating equipment, such as HVAC systems, generators, etc., as well as mobile noise sources such as truck loading/docking/idling. The EIR will include thresholds of significance, a project-level impact analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce any potential impacts associated with noise.

Response c): The project site is located approximately 7 miles from the nearest airport (the Tracy Municipal Airport), and is outside of the contours of the Tracy Municipal Airport land use plan. Therefore, there is ***no impact*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

XIV. POPULATION AND HOUSING

Would the project:	***Potentially Significant Impact***	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Responses to Checklist Questions

Response a): The project does not propose any housing that would result in direct population growth. However, projects that do not directly induce population growth still have the potential to result in indirect population growth through the creation of jobs or the extension of infrastructure into areas that were not previously served. The proposed project will not result in intensification of land uses, or the addition of structures or uses that would differ from the current General Plan. However, improvements to the roadway system created by the project represent a planned effort to coordinate improvements to accommodate the future buildout under the General Plan. Any individual future projects would have to be consistent with the General Plan and are subject to environmental review under CEQA. No substantial population increases would result from implementation of the proposed project. Therefore, implementation of the proposed project would have a ***less than significant*** impact relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response b): The project site is located adjacent to the Tracy city limits and contains developed roadways, undeveloped land, and agricultural land. The project alternative would displace one single family home. Per the City of Tracy General Plan, the project site is designated Industrial (see Figure 5). The proposed project is consistent with the current City land use designation and has been planned for development of industrial uses. Implementation of the proposed project would have ***no impact*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

XV. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X

Responses to Checklist Questions

Response a):

FIRE PROTECTION

Upon annexation, the project site would be under the jurisdiction of the South San Joaquin County Fire Authority. The proposed project would not include additional residential units, or people to the City of Tracy. The proposed project will not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan. No additional demand for fire protection will be created by the project, beyond that which was planned for in the current General Plan. Implementation of the proposed project wouldn't require additional demands for fire protection services from the South San Joaquin County Fire Authority, beyond that as planned for by the current General Plan. Therefore, implementation of the proposed project will have ***no impact*** to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

POLICE PROTECTION

Upon annexation, the project site would be under the jurisdiction of the Tracy Police Department. The proposed project would not include additional residential units, or people to the City of Tracy. The proposed project will not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan. No additional demand for police protection will be created by the project, beyond that which was planned for in the current General Plan. Implementation of the proposed project wouldn't require additional demands for police protection services from the Tracy Police Department, beyond that as planned for by the current General Plan. Therefore, implementation of the proposed project will have ***less than significant*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

SCHOOLS

Schools within the City of Tracy are part of the Tracy Unified School District and the Jefferson School District. The proposed project does not include any residential units, or any other type of use that would directly, or indirectly increase the student population in the area. The proposed project will not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan. Therefore, the proposed project would not result in the need for new school facilities; the project would have ***no impact*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

PARKS

The proposed project does not include any residential units or any other type of use that would directly, or indirectly increase the population, or park demand in the area, or include any other type of use that would directly increase the park needs. The proposed project will not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan. Therefore, the proposed project would not have the potential to require construction of additional park and recreational facilities which may cause substantial adverse physical environmental impacts. Thus, it is anticipated to have ***no impact*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

OTHER PUBLIC FACILITIES

The proposed project would not result in a need for other public facilities. The proposed project does not trigger the need for new facilities associated with other public services. The proposed project will not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan. Consequently, new facilities or other public services are not proposed at this time. Thus, it is anticipated to have a ***no impact*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

XVI. RECREATION

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Responses to Checklist Questions

Responses a)-b): The proposed project does not include any residential units or any other type of use that would increase the population, or park and recreation facility demand in the area, or include any other type of use that would directly increase the use of park and recreation facilities. The proposed project will not result in intensification of land uses, or the addition of structures or uses that would differ from the current General Plan. Therefore, the proposed project would not significantly increase the use of existing facilities. Furthermore, it is not anticipated that any substantial physical deterioration of existing facilities would occur, or be accelerated. Implementation of the proposed project would have ***no impact*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

XVII. TRANSPORTATION

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	X			
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	X			
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	X			
d) Result in inadequate emergency access?	X			

Responses to Checklist Questions

Response a-d): The proposed project includes the development of a use that will increase traffic on existing and planned roadways. Based on existing and projected traffic volume levels along roadways and potential increases in vehicle miles travelled (VMT) as a result of the project, it has been determined that traffic impacts will require a detailed analysis in the EIR. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the EIR and will determine whether the proposed project has the potential to have a significant impact from traffic. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is conducted in the EIR.

The EIR will include a Traffic Impact Analysis (TIA) to address the impacts of the proposed project on the surrounding transportation system including the roadways, transit service, pedestrian facilities, and bicycle facilities. The TIA will be conducted to address compliance with the City's General Plan and other requirements under CEQA. It will be prepared following applicable guidelines of the City of Tracy, San Joaquin County, and Caltrans, as applicable. The EIR will analyze total passenger vehicle and heavy-duty truck trips and associated VMT that are modeled to be generated by the proposed project. Potential impacts associated with site access, on-site circulation, and consistency with CEQA Guidelines section 15064.3, subdivision (b) will also be addressed in the EIR. Significant impacts will be identified in accordance with the established criteria, and mitigation measures will be identified to lessen the significance of any potential impacts.

The EIR will provide an analysis including the thresholds of significance, a project-level impact analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce any significant impacts associated with transportation.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	X			
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.	X			

Responses to Checklist Questions

Responses a)-b): Based on known historical, cultural, tribal, and archaeological resources in the region, and the potential for undocumented underground cultural resources in the region, it has been determined that the potential impacts on tribal cultural resources caused by the proposed project will require a detailed analysis in the EIR. As such, the lead agency will examine the environmental issues listed in the checklist above in the EIR and will decide whether the proposed project has the potential to have a significant impact on tribal cultural resources. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will include an overview of the prehistory and history of the area, the potential for surface and subsurface tribal cultural resources to be found in the area, the types of tribal cultural resources that may be expected to be found, a review of existing regulations and policies that protect tribal cultural resources, an impact analysis, and mitigation that should be implemented in order to reduce potential impacts to tribal cultural resources. In addition, the CEQA process will include a request to the Native American Heritage Commission for a list of local Native American groups that should be contacted relative to this project, as per the requirements of AB 52. The CEQA process will also include consultation with any Native American groups that have requested consultation with the City of Tracy.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Require or result in the relocation or construction of new or expanded water, wastewater or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	X			
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	X			
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?	X			
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Responses to Checklist Questions

Response a-c): Implementation of the proposed project would result in increased demands for utilities to serve the project. As such, the EIR will examine each of the environmental issues listed in the checklist above related to water, wastewater, and storm drainage and will decide whether the proposed project has the potential to have a significant impact to these utilities and service systems. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

The EIR will analyze wastewater, water, and storm drainage infrastructure, as well as other utilities (i.e. solid waste, gas, electric, etc.), that are needed to serve the proposed project. The wastewater assessment will include a discussion of the proposed collection and conveyance system, treatment methods and capacity at the treatment plants, and disposal location(s) and methods. The EIR will analyze the impacts associated with on-site construction of the conveyance system, including temporary impacts associated with the construction phase. The proposed infrastructure will be presented. The EIR will provide a discussion of the wastewater treatment plants that are within proximity to the project site, including current demand and capacity at these plants. The analysis will discuss the disposal methods and location, including environmental impacts and permit requirements associated with disposal of treated wastewater.

The storm drainage assessment will include a discussion of the proposed drainage collection system including impacts associated with on-site construction of the storm drainage system. The

EIR will identify permit requirements and mitigation needed to minimize and/or avoid impacts. The proposed infrastructure will be presented.

The EIR will include an assessment for consistency with City Master Plans and Management Plans that are directly related to these utilities.

The EIR will analyze the impacts associated with water supply and on-site and off-site construction of the water system, including temporary impacts associated with the construction phase. The results of a project-specific Water Supply Assessment will be provided. The EIR will also identify permit requirements and mitigation needed to minimize and/or avoid impacts, and will present the proposed infrastructure as provided by the project site engineering reports.

The EIR will also address solid waste collection and disposal services for the proposed project. This will include an assessment of the existing capacity and project demands. The assessment will identify whether there is sufficient capacity to meet the project demands.

The EIR will provide thresholds of significance, a project-level impact analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with utilities and service systems.

Responses d), e): The City of Tracy contracts with Tracy Disposal Service, a private company, for solid waste collection and disposal. Based on the waste generation factors provided by CalRecycle, the proposed project is expected to generate approximately 308.8 pounds per day of solid waste upon full buildout, which is equivalent to less than 0.2 tons per day; refer to Table UTIL-1.

TABLE UTIL-1: ESTIMATED SOLID WASTE GENERATION[2]

LAND USE	*GENERATION FACTOR[(1)]*	*PROJECT*	*ESTIMATED SOLID WASTE*
Manufacturing/Warehouse	1.42 lb./1,000 s.f./day	217,466 s.f.	308.8

[(1)] CalRecycle 2019

Currently, the permitted capacity of the Foothill Landfill is 102 million cubic yards. The remaining capacity of the facility is approximately 95 million cubic yards. As noted previously, the remaining capacity of the facility is approximately 95 million cubic yards. Current permits indicate a closure in 2054. There are no plans to expand the Foothill Landfill or build a new one to accommodate Tracy's waste since the Foothill Landfill is expected to meet the City's needs for the foreseeable future. The addition of the volume of solid waste associated with the proposed project to the Foothill Landfill would not exceed the landfill's remaining capacity.

Overall, the proposed project would be required to comply with applicable State and local requirements including those pertaining to solid waste, construction waste diversion, and recycling. The City would coordinate development of the proposed project with Tracy Disposal Service. Furthermore, the addition of the volume of solid waste associated with the proposed Project, approximately 0.2 tons per day, would increase the total tons of solid waste to the MRF to approximately 355 tons per day; however, this increase would not cause an exceedance of the landfill's remaining capacity. Therefore, the proposed project would not generate solid waste in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or exceed any State or local standards associated with solid waste. This is a ***less***

[2] See: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates

than significant impact. This topic does not warrant additional analysis and will not be addressed further in the EIR.

XX. WILDFIRE

Would the project:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

Background

The project site is not identified as a Very High Fire Hazard Severity Zones or State Responsibility Area. Consistent with Appendix G of the CEQA Guidelines, the above checklist questions do not apply to the project. However, the following impact discussion is included for informational purposes.

Responses to Checklist Questions

Responses a), c): The project includes the development of internal roadways and other impervious surfaces within the project site. The proposed improvements would reduce fire risks on and relating to the project site relative to existing conditions. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The proposed improvements would require long-term maintenance; however, the improvements would not exacerbate fire risks. Therefore, impacts from project implementation would be considered ***less than significant*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response b): The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The County has areas with an abundance of flashy fuels (i.e. grassland). However, the project site is not near steep slopes. The Cal Fire Station 26 is located adjacent west of Hansen Road, west of the project site. Development of the two warehouses would not exacerbate fire risks in the area. The project would not result in development of structures or housing which would subject residents, visitors, or workers to long-term wildfire danger. Additionally, the City's emergency access routes and public information regarding designated facilities and routes are regularly reviewed to ensure

that up to date information is available to the City and the public in the event of an emergency. Therefore, impacts from project implementation would be considered ***less than significant*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response d): The project does not propose any housing that would result in direct population growth. However, projects that do not directly induce population growth still have the potential to result in indirect population growth through the creation of jobs or the extension of infrastructure into areas that were not previously served. The proposed project will not result in intensification of land uses, or the addition of structures or uses that would differ from the current General Plan. As such, exposure to people or structures to any significant risk would not result. Therefore, impacts from project implementation would be considered ***less than significant*** relative to this topic. This topic does not warrant additional analysis and will not be addressed further in the EIR.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	X			
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	X			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X			

Responses to Checklist Questions

Responses a)-c): It has been determined that the potential for the proposed project to: substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory; degrade the quality of the environment; create cumulatively considerable impacts; or adversely affect human beings will require more detailed analysis in an EIR. As such, the City of Tracy will examine each of these environmental issues in the EIR and will decide whether the proposed project has the potential to have significant impacts on these environmental issues. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the EIR.

REFERENCES

Army Corps of Engineers. 1987. Army Corps of Engineers Wetland Delineation Manual.

ATC Group Services. Phase 1 Environmental Site Assessment. November 4, 2020.

Barbour and Major 1988. Terrestrial Vegetation of California.

C Donald Ahrens. 2006. Meteorology Today: An Introduction to Weather, Climate, & the Environment.

California Air Resources Board. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. October 2000. Available at: <https://www.arb.ca.gov/diesel/documents/rrpFinal.pdf>.

California Air Resources Board. 2016. ARB Databases: Aerometric Data Analysis and Management System (ADAM). Available at: <http://www.arb.ca.gov/html/databases.htm>.

California Air Resources Board. 2017. Final 2017 Scoping Plan Update and Appendices. Available at: <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents>

California Department of Conservation. 2016. California Important Farmland Finder. Available at: <http://maps.conservation.ca.gov/ciff/ciff.html>.

California Department of Conservation. California Land Conservation Act of 1965 2016 Status Report, The Williamson Act. December 2016.

California Department of Transportation. Transportation Related Earthborn Vibrations. TAV-02-01-R9601 February 20, 2002.

California Energy Commission. 2005. Global Climate Change: In Support of the 2005 Integrated Energy Policy Report. (CEC-600-2005-007.) Available at: <http://www.energy.ca.gov/2005publications/CEC-100-2005-007/CEC-100-2005-007-CMF.PDF>.

California Energy Commission. 2006. Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004. (CEC-600-2006-013-SF.) Available at: <http://www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.PDF>.

California Energy Commission. 2021. California Greenhouse Gas Emission Inventory – 2020Edition. Available at: https://www.arb.ca.gov/cc/inventory/data/data.htm

California Department of Resources Recycling and Recovery (CalRecycle). Estimated Solid Waste Generation Rates. 2019. Available at: <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>

City of Tracy. City of Tracy General Plan Draft Environmental Impact Report. October 4, 2005.

City of Tracy. City of Tracy General Plan. February 1, 2011.

City of Tracy. Tracy Municipal Code. Codified through Ordinance No. 1269, passed June 4, 2019.

Federal Highway Administration. Roadway Construction Noise Model User's Guide, FHWA-HEP-05-054. January 2006.

Federal Transit Administration. Transit Noise and Vibration Impact Assessment Guidelines. May 2006

Intergovernmental Panel on Climate Change. 2007. Climate Change 2007: The Physical Science Basis, Summary for Policy Makers. Available at: <http://fire.pppl.gov/ipcc_summary_020207.pdf>.

Kimley Horn. 16286 West Schulte Road Warehouse CEQA Traffic Analysis. June 13, 2022.

San Joaquin Air Pollution Control District. 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 19, 2015. Available: < http://www.valleyair.org/transportation/GAMAQI.pdf>

San Joaquin Council of Governments. Airport Land Use Compatibility Plan Update, San Joaquin County Aviation System, San Joaquin County, California. July 2009.

San Joaquin Council of Governments (SJCOG). The 2018 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Adopted June 2018.

Sawyer, John and Todd Keeler-Wolf. 1995. A Manual of California Vegetation.

Saxelby Acoustics, LLC. Environmental Noise Assessment – Schulte Road Warehouse. July 20, 2022.

Siegfried. Stormwater Control Plan (SWQCP) for Schulte Rd. Warehouse. January 14, 2022.

Siegfried. Stormwater Control Plan (SWQCP) for Schulte Rd. Parking Lot. January 14, 2022.

Skinner, Mark W. and Bruce M. Pavlik, Eds. 2001. California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California.

Wallace Kuhl & Associates. Preliminary Geotechnical Engineering Report – West Schulte Road Warehouse Project. March 23, 2022.

West Yost. Hydraulic Evaluation of Schulte Warehouse. February 4, 2022.

Wood Rogers. Storm Drainage for the Schulte Warehouse Project, D21-0020. October 10, 2022.

U.S. Environmental Protection Agency. 2014. Climate Change Indicators in the United States: Global Greenhouse Gas Emissions. Updated May 2014. Available at: www.epa.gov/climatechange/indicators

APPENDIX A

Hydraulic Evaluation

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TECHNICAL MEMORANDUM

DATE: February 4, 2022

Project No.: 404-60-22-78
SENT VIA: EMAIL

TO: Robert Armijo, City of Tracy

CC: Paul Verma, City of Tracy
Al Gali, City of Tracy

FROM: Roger Chu, PE, RCE #87591
Chris Pittner, QISP, PE, RCE #93576

REVIEWED BY: Amy Kwong, PE, RCE #73213

SUBJECT: Hydraulic Evaluation of Schulte Warehouse

This Technical Memorandum (TM) summarizes West Yost's technical evaluation of the ability of the City of Tracy's (City) existing potable water distribution system to meet the required minimum pressures and flows for the proposed Schulte Warehouse Project (Project).

This TM is submitted in accordance with West Yost's October 2021 Scope of Services for engineering services to the City. The scope of this evaluation does not include review of water supply availability or water treatment plant capacity for the Project; these items are discussed in other documents, such as the City's Water System Master Plan and the "Evaluation of Near-Term Water Demand and Water Supply" TM (Near-Term TM).[1] In addition, this evaluation does not determine the adequacy of on-site private pipelines to serve the Project.

The following sections summarize West Yost's findings and conclusions:

- Project Description
- Estimated Water Demand for the Project
- Storage and Pumping Capacity Evaluation
- Hydraulic Evaluation Findings
- Summary of Evaluation and Recommendations

[1] "Evaluation of Near-Term Water Demand and Water Supply," West Yost Associates, November 9, 2021.

PROJECT DESCRIPTION

The Project is located outside the existing City limits (Westside Industrial Development Area) but within the City's Sphere of Influence (SOI); southeast of the intersection of West Schulte Road and Hansen Road. The Project site is approximately 20.9 acres and will consist of one building with approximately 217,000 square feet of warehouse and office space with associated parking and landscaping.

Potable water service for the Project will be served by existing Pressure Zone 2 (Zone 2) pipelines located in West Schulte Road and Hansen Road. Project plans do not specify the diameters for the proposed pipelines for the Project. To meet the City's pipeline velocity criterion, it is recommended that these pipelines be 12-inches in diameter.

This TM evaluates the impacts of the Project to the City's potable water distribution system under both existing and future alternative system operations. In both scenarios, it is assumed that the 16-inch diameter pipeline in Promontory Parkway east of Hansen Road is in service, and that the eastern portion of Cordes Ranch is served by Zone 2.

Under existing system operations, it is assumed that the Cordes Tank and Booster Pump Station (PS) (including the Pressure Regulating Station) are operational, and that the Project is primarily supplied by Zone 2 facilities via the existing 24-inch diameter pipeline in West Schulte Road. Figure 1 shows the proposed public water system infrastructure serving the Project under existing system operations.

Under future alternative system operations, Zone 3 facilities serving Cordes Ranch will be connected directly to the John Jones Water Treatment Plant (JJWTP). This will be achieved by rezoning the existing 24-inch diameter pipeline in Schulte Road to Zone 3. This scenario also assumes completion of the recommended rezoning improvements along Hood Way[2] and Lammers Road.[3] Under alternative system operations, the Project would still be supplied via the 24-inch diameter pipeline in Schulte Road, but water would be delivered at higher pressures than under existing system operations. Figure 2 shows the public water system infrastructure serving the Project under future alternative system operations.

ESTIMATED WATER DEMAND FOR THE PROJECT

Water demands were estimated for the Project site using the unit water demand factors adopted in the 2020 Citywide Water System Master Plan update (2020 WSMP). Table 1 shows the Project's proposed land use, water use factors, and projected annual potable water use. The total potable water demand for the Project (domestic and irrigation) is estimated at 32.2 acre-feet per year (af/yr).

This evaluation assumes potable water will be used to meet all Project water demands. The City has yet to construct infrastructure to deliver recycled water to the Project, so potable water will be used to meet non-potable water demands in the interim. Once the City's recycled water system can supply the Project, potable water demands should decrease.

[2] "Design Recommendations for Hood Way Pipeline," West Yost Associates, June 13, 2019.

[3] "Design Recommendations for Lammers Road Pipeline," West Yost Associates, June 13, 2019.

Table 1. Estimated Annual Water Demand for the Project

Land Use Designation	Total Area[a], gross acres	Potable Water Use Area[b], acres	Landscaped Area[c], acres	Unit Potable Water Use Factor[d], af/acre/yr	Annual Potable Water Use, af/yr
Industrial	20.9	17.8		1.3	23.1
		--	3.1	1.9	6.0
UAFW[e]	--	--	--	--	3.1
Total	**20.9**	**17.8**	**3.1**	**--**	**32.2**

(a) New Warehouse Building, 16286 W Schulte Rd, Development Review and Rezoning Plans, dated June 23, 2021.
(b) Consistent with the 2020 WSMP, 85 percent of gross acres are assumed to use potable water.
(c) Consistent with the 2020 WSMP, 15 percent of gross acres are assumed to be landscaped.
(d) Based on the 2020 WSMP.
(e) Unaccounted-for water (UAFW) is equal to 9.6 percent.

Table 2 summarizes the estimated average day, maximum day, and peak hour water demands for the Project. The average day demand (ADD) for the Project is approximately 19.9 gallons per minute (gpm). Maximum day demands (MDD) and peak hour demands (PHD) were calculated using the City's peaking factors (adopted in the 2020 WSMP) of 1.7 and 2.9 times the ADD, respectively, resulting in an MDD of about 33.8 gpm and a PHD of about 57.7 gpm.

Table 2. Summary of Average Day, Maximum Day, and Peak Hour Water Demands for the Project

Average Day Demand[a]		Maximum Day Demand[b]		Peak Hour Demand[c]	
gpm	mgd[d]	gpm	mgd	gpm	mgd
19.9	0.03	33.8	0.05	57.7	0.08

(a) The ADD is based on the total annual potable water use calculated in Table 1.
(b) MDD Is 1.7 times the ADD, per the 2020 WSMP.
(c) PHD is 2.9 times the ADD, per the 2020 WSMP.
(d) mgd = million gallons per day

STORAGE AND PUMPING CAPACITY EVALUATION

The storage requirement for the City's potable water system consists of three components:

- **Operational Storage**: 30 percent of a maximum day demand
- **Emergency Storage**: 1.5 times an average day demand
- **Fire Flow Storage**: The required fire flow rate multiplied by the associated fire flow duration period

While the required fire flow storage component for the Project would be shared with the other proposed and existing developments, the operational and emergency storage components from the Project would increase the City's operational and emergency storage requirements by 14,600 and 43,000 gallons, respectively. Storage facilities in Zone 1 and Zone 2 would serve the Project under existing system operations, while storage facilities in Zone 3 (Cordes Tank) would serve the Project under future alternative system operations.

Based on the City's storage capacity evaluation criteria and after accounting for the Project's storage requirements, there is surplus storage capacity under both existing and future alternative system operations. Zone 1 and Zone 2 storage facilities have a combined surplus of approximately 2.6 million gallons (MG) under existing operations, and Cordes Tank has a storage capacity surplus of approximately 0.1 MG under alternative system operations.

The Project would increase the City's overall maximum day and peak hour demands by approximately 33.8 and 57.7 gpm, respectively. Under existing system operations, the Project will rely on Zone 2 facilities to provide pumping capacity. Based on the City's available pumping capacity in Zones 1 and 2, there is currently sufficient pumping capacity to adequately serve the Project.

Under future alternative system operations, the Project would rely on the combined Zone 3 facilities to provide pumping capacity. While there is sufficient pumping capacity in Zone 3 to meet maximum day demands plus fire flow, both the Cordes PS and the Zone 3 Booster Pump Station (Z3 PS) at the JJWTP would need to operate simultaneously to meet maximum day demands in Zone 3 during a 4,500-gpm fire flow condition. Similar to the storage capacity evaluation, this condition includes demands from the Project as well as other existing and proposed Zone 3 developments (e.g., Costco Depot and all phases of the Ellis Specific Plan).

This simultaneous pump station operation would require adjustment to the recommended Z3 PS ultimate operating conditions as outlined in the "Operation of the City-Side Pressure Zone 3 Pump Station and Tracy Hills Zone 3 Pump Station" TM,[4] which assumed that the Cordes PS could provide maximum day demand plus fire flow for Zone 3 at buildout. When the City is closer to implementing the alternative system operations, further evaluation is required to develop a plan for operating the Cordes PS and Z3 PS simultaneously under alternative system operations to confirm that maximum day plus fire flow demands can be adequately served. It should also be noted that the existing Z3 PS is only the first phase of its planned buildout. The need for and timing of additional pumping capacity from the second phase of the Z3 PS will be evaluated in future studies.

HYDRAULIC EVALUATION FINDINGS

Hydraulic evaluation of the Project is based on system performance and operational criteria developed in the 2020 WSMP. These criteria are provided in Attachment A for reference. The City's existing developer hydraulic model[5] was updated to include the water demands for the Project. This updated model was then used to simulate PHD and MDD plus fire flow conditions to determine the Project's impacts under existing and future alternative system operations. Results from this hydraulic evaluation are discussed below.

Peak Hour Demand Evaluation – Existing Operations

Figure 3 shows system pressures and pipeline velocities during a PHD condition under existing system operations. Pressure at the Project's domestic service connection point in Hansen Road is approximately 25 pounds per square inch (psi). The existing system cannot provide 40 psi at the Project's service connection point because the Project is located at approximately 190 feet (ft) of elevation, which is above

[4] West Yost Associates, Operation of the City-Side Pressure Zone 3 Pump Station and Tracy Hills Zone 3 Pump Station, July 10, 2018.

[5] The City's developer hydraulic model includes all previously evaluated development projects and is separate from the 2020 WSMP model. Refer to Attachment A for list of development projects included.

the maximum Zone 2 service elevation of 150 ft. Velocities in the proposed Project pipelines do not exceed the maximum pipeline velocity limit of 8 feet per second (fps).

Maximum Day Demand plus Fire Flow Evaluation – Existing Operations

To meet fire flow requirements, the water system must be able to provide 4,500 gpm to the Project site during an MDD condition, while maintaining 20 psi residual system pressure (primary criterion) and pipeline velocities below 12 fps (secondary criterion). Figure 4 shows whether sufficient fire flow is available using these criteria under existing system operations. Results are displayed at evaluated locations within Zones 2 and 3 near the Project. Fire flow deficiencies occur along the existing 24-inch diameter pipeline in West Schulte Road and the new 12-inch diameter pipeline loop. These deficiencies are due to the Project being located above the maximum Zone 2 service elevation.

Peak Hour Demand Evaluation – Alternative Operations

Figure 5 shows system pressures and pipeline velocities during a PHD condition under future alternative system operations. In the alternative operations scenario, simulated pressures and pipeline velocities meet the City's water system performance criteria. Pressure at the Project's domestic service connection point in Hansen Road is approximately 75 psi. Because system pressures exceed 80 psi within the Project site under future alternative system operations, it is recommended that pressure reducing valves are installed on all of the Project's service laterals. Velocities in the proposed Project pipelines do not exceed the maximum pipeline velocity limit of 8 fps.

Maximum Day Demand plus Fire Flow Evaluation – Alternative Operations

Figure 6 shows whether sufficient fire flow is available during an MDD condition under future alternative system operations. Results are displayed at evaluated locations within Zone 3 near the Project. All evaluated locations meet or exceed the minimum fire flow requirement under future alternative system operations.

SUMMARY OF EVALUATION AND RECOMMENDATIONS

Based on storage capacity criteria in the 2020 WSMP, the City currently has sufficient storage capacity in Zones 1 and 2 (existing system operations) and Zone 3 (future alternative system operations) to meet the needs of the proposed Project.

Under existing system operations, the City has sufficient pumping capacity in Zones 1 and 2 to adequately serve the Project. Under future alternative system operations, the City has sufficient pumping capacity in Zone 3, but both the Cordes PS and the Z3 PS would need to operate simultaneously during a fire. These operational recommendations and the potential need for additional Zone 3 pumping capacity will be evaluated in future studies.

Under existing system operations, the City's existing water system infrastructure cannot provide the required flows and pressures to the Project during a PHD condition or an MDD plus fire flow condition. This is because the Project is located above the maximum Zone 2 service elevation of 150 ft. To meet the City's system performance requirements under existing system operations, the Project must either:

1. **Install Private, On-site Booster Pumps**: At least one 60-gpm booster pump would be installed to provide adequate service pressure to the Project during a PHD condition. An additional on-site booster pump may also be needed to provide redundancy. To meet fire flow requirements, Project proponents will likely need to also install an on-site fire pump. The fire pump size would depend on the Project's specific fire flow requirements as determined by the South San Joaquin County Fire Authority (SSJCFA). The 4,500-gpm requirement used in this evaluation is a conservative value for industrial land uses. Depending on the specific building materials and construction methods used, the SSJCFA may reduce the Project's fire flow requirements.
2. **Revise Project Connections:** To avoid the pressure and fire flow deficiencies identified when supplied by Zone 2 (i.e., under existing system operations), the Project could connect directly to Zone 3 from the start. This would consist of the following changes: (1) for the proposed pipeline in Hansen Road, instead of connecting to the existing 24-inch diameter Zone 2 pipeline at the intersection of Hansen Road and West Schulte Road, connect to the existing 24-inch diameter Zone 3 pipeline at the same intersection; and (2) for the connection in West Schulte Road, install approximately 550 ft of new, 12-inch diameter Zone 3 pipeline in West Schulte Road and connect to the existing 24-inch diameter Zone 3 pipeline at the intersection of Hansen Road and West Schulte Road. Preliminary hydraulic model results indicate that this option would provide adequate service to the Project.

While both options are hydraulically adequate, Option 1 appears to be more feasible for the Project because it would likely be less expensive than installing a new pipeline in West Schulte Road.

Once the 24-inch diameter pipeline in West Schulte Road is re-zoned to Zone 3 under alternative system operations, the existing water system infrastructure would be sufficient to meet the required flows, pressures, and velocities during both a PHD condition and a MDD plus fire flow condition. However, because pressures at the Project will exceed 80 psi under alternative system operations, it will be necessary to install a pressure reducing valve on the Project's domestic water service line after the transition to alternative system operations. Under future alternative system operations, the on-site booster pump(s) recommended above for existing system operations would no longer be needed.

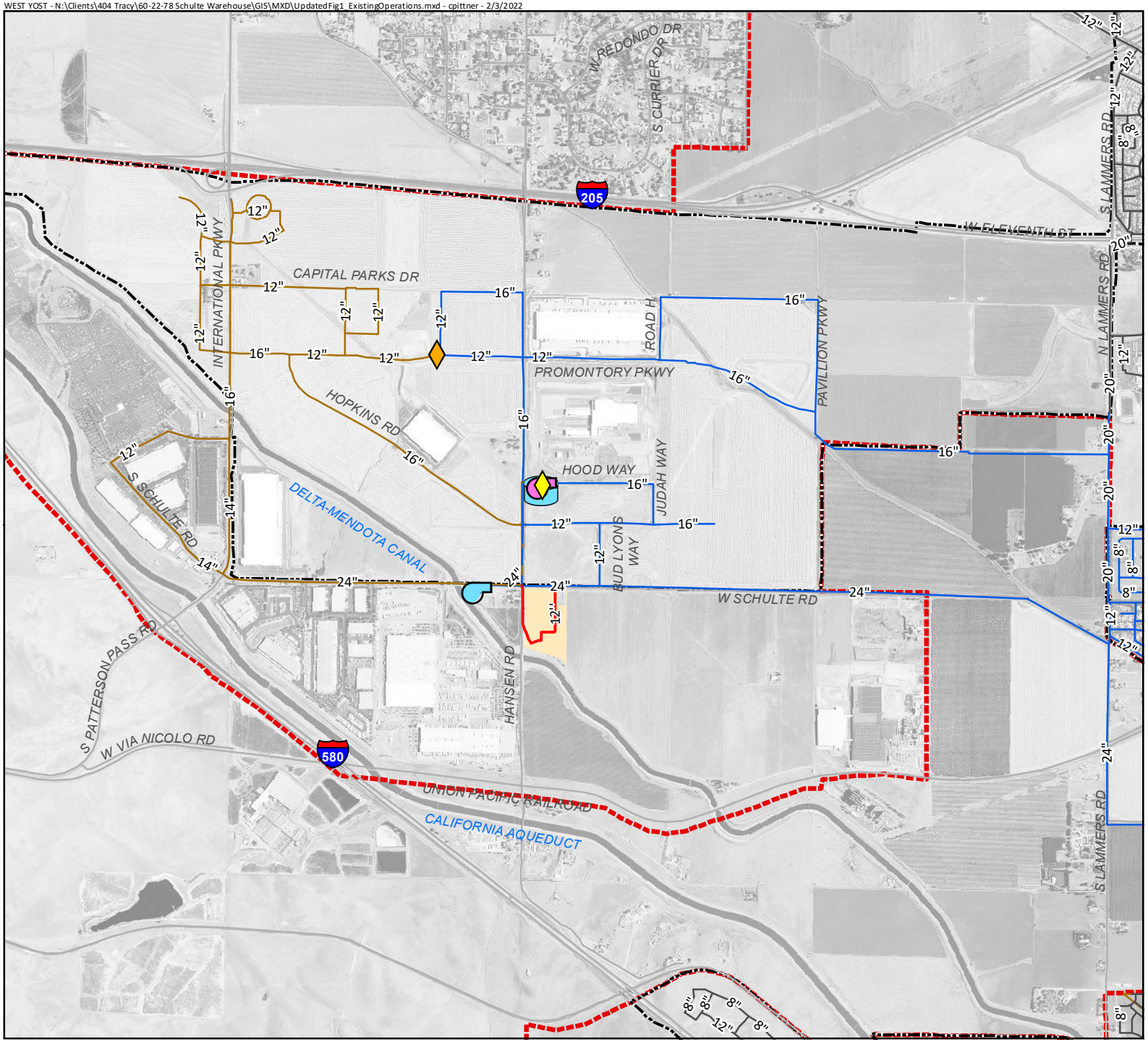
In summary, West Yost's recommendations are to:

- Size the proposed Project pipelines to be 12-inches in diameter.
- Install at least one 60-gpm, on-site booster pump to serve the Project. An additional booster pump may be necessary for redundancy.
- Discuss the Project's fire flow requirement with the SSJCFA. If the SSJCFA determines that the fire flow requirement for the Project is greater than 2,000 gpm, install an appropriately sized fire pump.
- Install a pressure reducing valve on the Project's domestic water service line after the transition to alternative system operation.

While this TM did not evaluate water supplies to serve the Project, it was included in the Near-Term TM, which evaluated the City's water demand and water supply conditions through 2025. The City has indicated that development impact fees need to be paid by new development to fund future water supply projects to provide adequate water supplies.

The hydraulic evaluation performed for the proposed Project is based on the various assumptions stated above. If any of these items are changed or modified in any way, other than as described in this TM, additional hydraulic evaluation will be required.

WEST YOST - N:\Clients\404 Tracy\60-22-78 Schulte Warehouse\GIS\MXD\UpdatedFig1_ExistingOperations.mxd - cpittner - 2/3/2022



N

0 1,250 2,500

Scale in Feet

Pipeline Zone

- Zone 2 - Proposed
- Zone 2 - Existing
- Zone 3 - Existing
- Other - Existing
- Cordes Pressure Regulating Station
- Promontory Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit
- Sphere of Influence

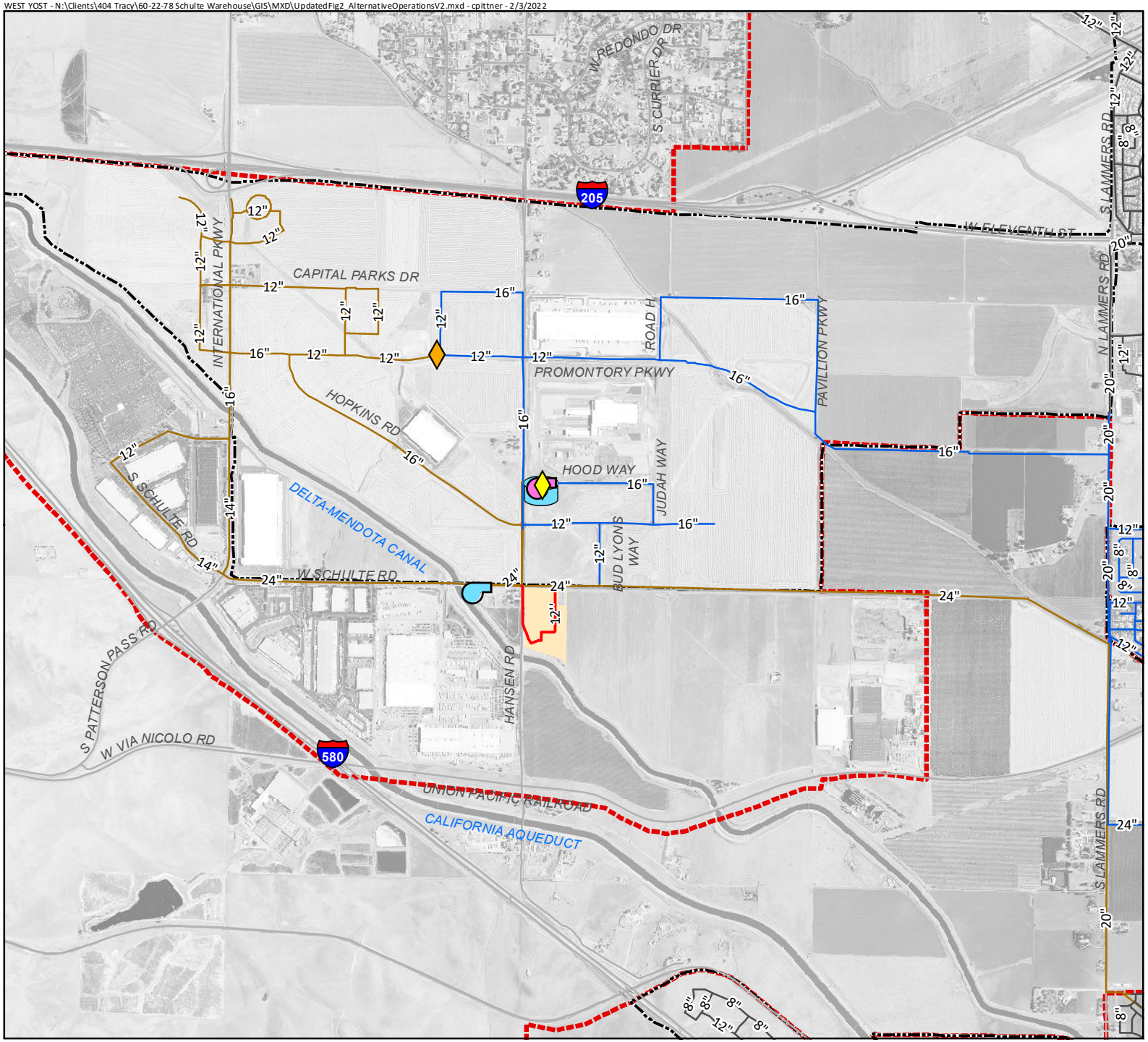
WEST YOST

Figure 1

Existing Operations

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

WEST YOST - N:\Clients\404 Tracy\60-22-78 Schulte Warehouse\GIS\MXD\UpdatedFig2_AlternativeOperationsV2.mxd - cpittner - 2/3/2022



0 1,250 2,500

Scale in Feet

Pipeline Zone

- Zone 3 - Proposed
- Zone 2 - Existing
- Zone 3 - Existing
- Other - Existing
- Cordes Pressure Regulating Station
- Promontory Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit
- Sphere of Influence

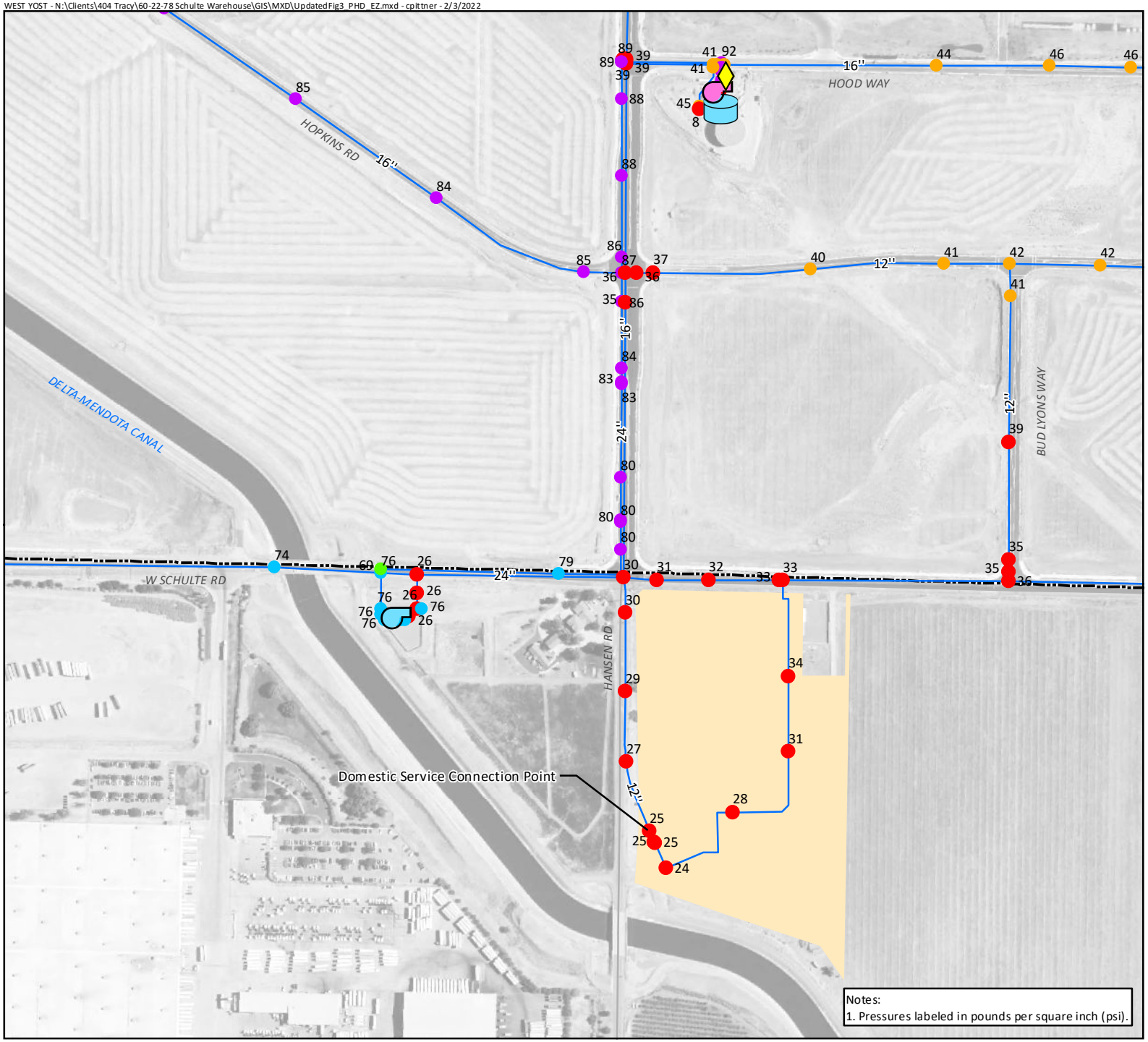
WEST YOST

Figure 2

Alternative Operations

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

WEST YOST - N:\Clients\404 Tracy\60-22-78 Schulte Warehouse\GIS\MXD\UpdatedFig3_PHD_EZ.mxd - cpittner - 2/3/2022



N

0 250 500

Scale in Feet

Peak Hour Pressure

- Less than 40 psi
- 40 to 50 psi
- 50 to 60 psi
- 60 to 70 psi
- 70 to 80 psi
- Greater than 80 psi

Pipeline Velocity

- Less than or Equal to 8 fps
- Greater than 8 fps
- Cordes Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit

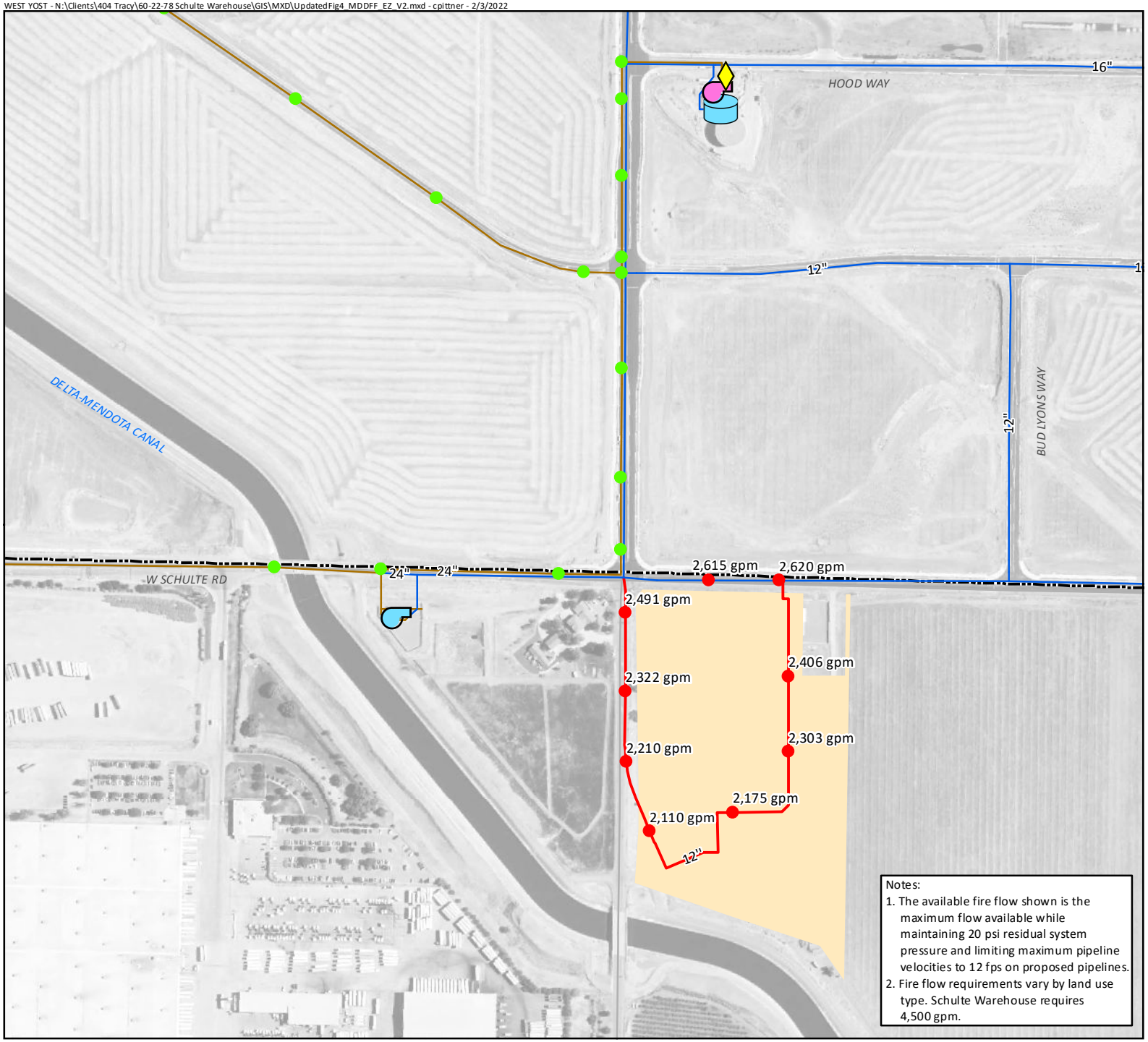
WEST YOST

Figure 3

Existing Operations Peak Hour Results

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

WEST YOST - N:\Clients\404 Tracy\60-22-78 Schulte Warehouse\GIS\MXD\UpdatedFig4_MDDFF_EZ_V2.mxd - cpittner - 2/3/2022



N

0 250 500

Scale in Feet

Available Fire Flow

- Does not Meet Requirements
- Meets Requirements

Pipeline Zone

- Zone 2 - Proposed
- Zone 2 - Existing
- Zone 3 - Existing
- Cordes Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit

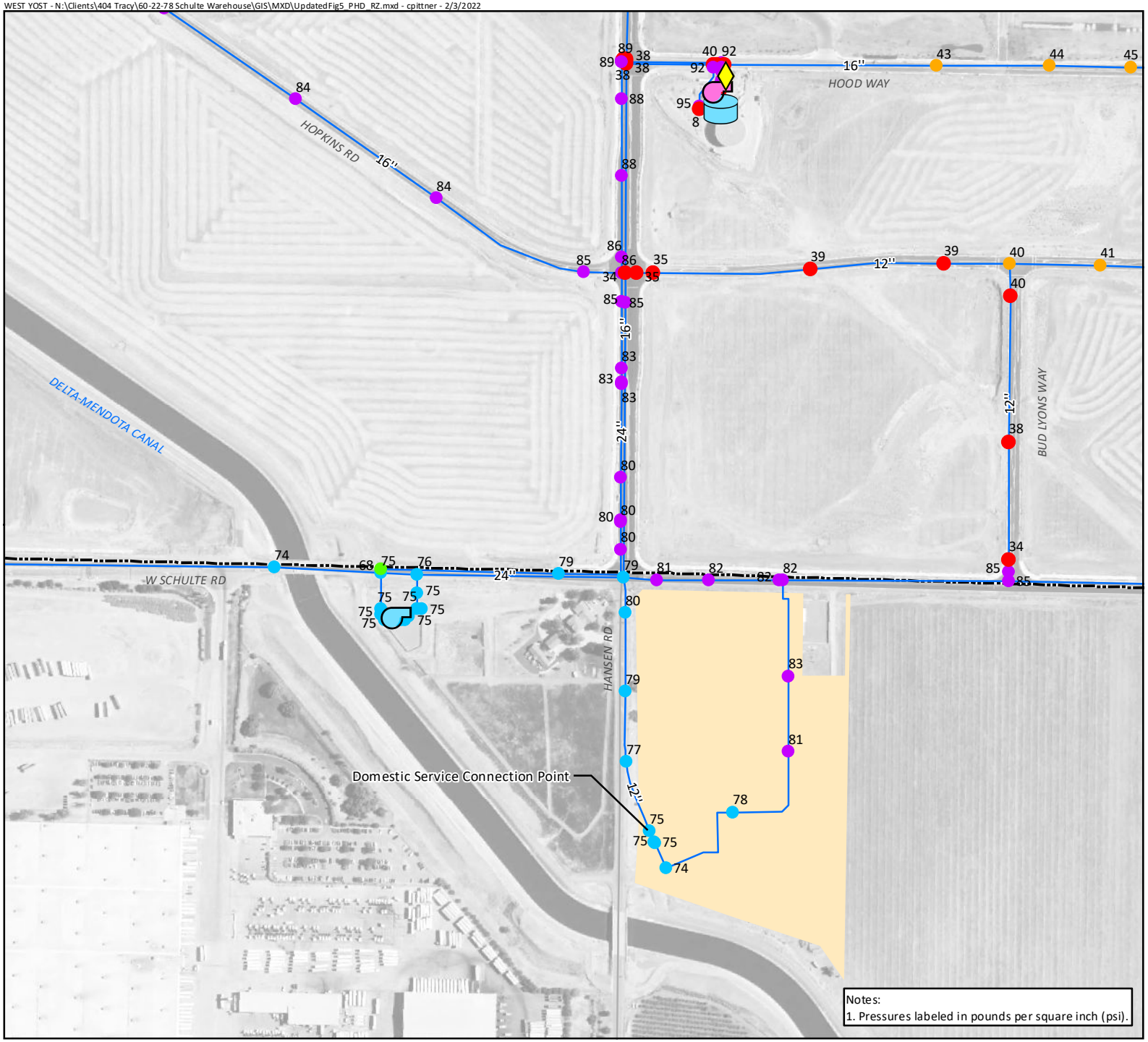
WEST YOST

Figure 4

Existing Operations Fire Flow Results

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

WEST YOST - N:\Clients\404 Tracy\60-22-78 Schulte Warehouse\GIS\MXD\UpdatedFig5_PHD_RZ.mxd - cpittner - 2/3/2022



N

0 250 500

Scale in Feet

Peak Hour Pressure

- Less than 40 psi
- 40 to 50 psi
- 50 to 60 psi
- 60 to 70 psi
- 70 to 80 psi
- Greater than 80 psi

Pipeline Velocity

- Less than or Equal to 8 fps
- Greater than 8 fps
- Cordes Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit

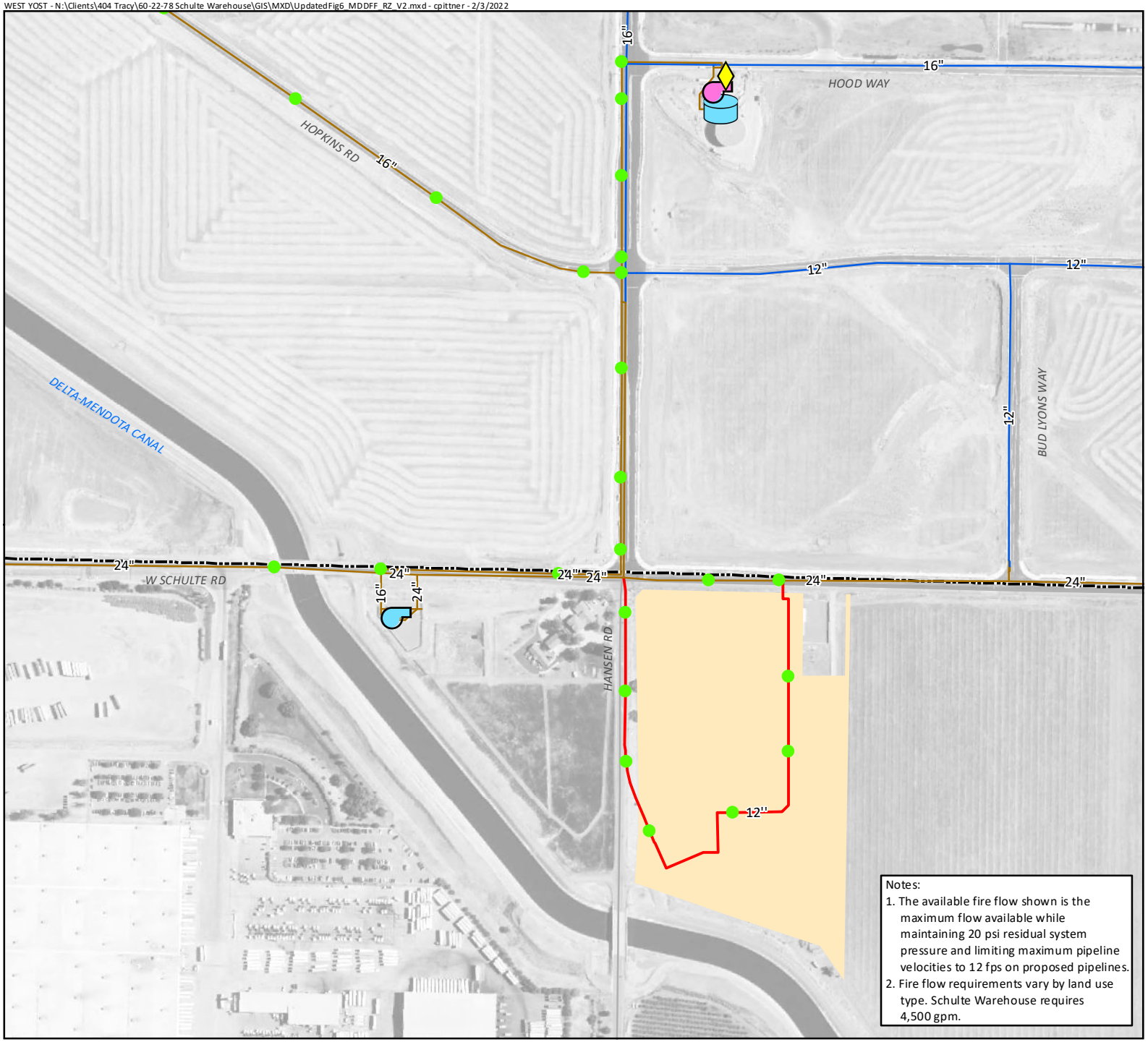
WEST YOST

Figure 5

Alternative Operations Peak Hour Results

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

WEST YOST - N:\Clients\404 Tracy\60-22-78 Schulte Warehouse\GIS\MXD\UpdatedFig6_MDDFF_RZ_V2.mxd - cpittner - 2/3/2022



N

0 250 500

Scale in Feet

Available Fire Flow

- Does not Meet Requirements
- Meets Requirements

Pipeline Zone

- Zone 3 - Proposed
- Zone 2 - Existing
- Zone 3 - Existing
- Cordes Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit

WEST YOST

Figure 6

Alternative Operations Fire Flow Results

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

Attachment A

Planning and Modeling Criteria

Planning and modeling criteria used to evaluate the proposed Project are based on the system performance and operational criteria developed in the 2020 Citywide Water System Master Plan update (2020 WSMP). The criteria used to evaluate the existing water system and the proposed pipelines for the Project are listed as follows:

- Residual pressure at the flowing hydrant (during an assumed maximum day demand plus fire flow condition) and throughout the water system must be equal to or greater than 20 pounds per square inch (psi) during the simulated fire condition.
- Minimum allowable service pressure is 40 psi during all other non-fire demand conditions.
- Maximum allowable service pressure is 80 psi. A pressure reducing valve will be required on all water services with a static pressure greater than 80 psi and should conform with the requirements from the Uniform Plumbing Code.
- Maximum allowable distribution pipeline velocity is 12 feet per second (fps) during the simulated fire flow demand condition.
- Maximum allowable transmission and distribution pipeline velocity is 6 fps and 8 fps, respectively, during a non-fire demand condition.
- Maximum allowable head loss rate is 10 feet per 1,000 feet (ft/kft) during the simulated fire demand condition.
- Maximum head losses in distribution system pipelines should be limited to 7 ft/kft during a non-fire demand condition.
- New and required pipelines will be modeled with a roughness coefficient (C-factor) of 130.
- Available fire flow demand must meet a minimum flow of 1,500 gallons per minute (gpm), 2,500 gpm, 3,500 gpm, or 4,500 gpm depending on land use during a maximum day demand condition. These required fire flow demands assume that buildings are sprinklered.
- The 2020 WSMP hydraulic model of the City's existing water distribution system was used as the basis for evaluation.[1]

[1] This existing system hydraulic model was updated to include projected water demands from new and planned developments such as Valpico and MacDonald Apartments; Sierra Hills (Aspire I) Apartments; I 205 Parcels M1 and M2 and Infill Parcels 7 and 13; Grant Line Road Apartments; Rocking Horse; Aspire II Development; Ellis Specific Plan Phases 1, 2, and 3; Marriott TownePlace Suites; Larch Clover Interim Annexation; IPC Buildings 3, 4, and 12; IPC Building 25; IPC Buildings 22, 23, and Thermo Fisher; Tracy Village Specific Plan; Avenues Specific Plan; IPC Buildings 9, 10, and 14; NEI Specific Plan; Tracy Hills Phases 1A, 1B, and 1C; IPC Building 19A; Costco Depot; West Parkway Village; KT Project; IPC Prologis Sales Office Building; IPC Building 2; Tracy Alliance Project; IPC Building 16; IPC Building 8; Tracy Hills Phases 2-4; Tracy Hills Commerce Center; and Promontory Station. City staff also requested West Yost to incorporate the following developments, which were evaluated by Black Water Consulting Engineers, Inc., into the City's hydraulic model: Barcelona Infill; Berg Road Properties; Harvest Apartments; 321 E. Grant Line Apartments; Home 2 Suites; IPT Pescadero Buildings 2 and 3; IPT Pescadero Building 4; Byron Apartments; Assisted Living and Memory Care; La Quinta Inn & Suites; Seefried Industrial Campus; and California Highway Patrol.

APPENDIX B

Storm Drainage Technical Memorandum

Technical Memorandum

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

To:	Ms. Ilene Macintire, PE, City of Tracy
From:	Mr. Harvey Oslick, PE, Wood Rodgers, Inc.
Date:	October 10, 2022
Subject:	Storm Drainage for the Schulte Warehouse Project, D21-0020

PURPOSE

The purpose of this Technical Memorandum (TM) is to document technical analyses associated with storm drainage for the Schulte Warehouse Project (Project) site located southeast of the intersection of West Schulte Road and Hansen Road within the sphere of influence of the City of Tracy (City). These technical analyses are intended to accomplish the following objectives:

1. Identify how much temporary retention capacity would be required if the Project was to proceed before the connection to the Byron-Bethany Irrigation District (BBID)[1] system is established;
2. Determine the Project's share of the allowable discharge into the BBID drainage system;
3. Compute how much detention would be required to manage runoff originating on-site based on the allowable discharge into the BBID drainage system; and
4. Calculate peak discharges from the site without detention and use the peak discharges as a basis for preliminary pipe sizing in order to calculate cost comparisons between conveyance and storage options.

SITE DESCRIPTION

The Project site encompasses approximately 20.92 acres and is identified by Assessor's Parcel Numbers (APNs) 209-230-250 and 209-230-260. The larger parcel (APN 209-230-250) is proposed for development as part of the Project. The smaller parcel (APN 209-230-260), referred to as the Williams Communication Parcel, would not be developed.

The Project site is bordered by Hansen Road to the west, West Schulte Road to the north, and the Delta Mendota Canal to the south. The southern portion of the Project site is developed with three single-family residences and six ancillary structures. The Project site topography is generally flat, except for two five- to ten-foot-deep ponds located along the eastern site boundary from previous dairy operations.

[1] Byron-Bethany Irrigation District was formerly known as the West Side Irrigation District.

The proposed Project would include demolition of the three single-family residences and six ancillary structures, as well as redevelopment of the site with a one-story warehouse building and a surface parking lot.

The proposed warehouse would be 217,466 square-feet (sf) in total. The proposed parking area would include 206 vehicle parking stalls and 116 trailer parking stalls.

The Overall Site Plan lists the lot size as 649,074 square feet, or 14.9 acres. It is estimated that the 14.9-acre lot would be 77-percent impervious. For the purposes of this TM, it is assumed that one drainage system would be used for the 14.9-acre lot and that another drainage system would be used for roadway improvements on the Project site. It is estimated that the roadway drainage system would need to manage runoff from 5.0 acres that would be 50-percent impervious.

TEMPORARY RETENTION REQUIREMENT

Temporary storm drainage retention would be required if the Project proceeds prior to construction of the permanent connection from the Lammers Watershed to the BBID drainage system. Temporary retention requirements are promulgated in Sections 5.06 and 5.07 of the City's Design Standards. Section 5.07(D) includes a calculation procedure for sizing temporary retention basins. Assumptions were made to perform the calculation procedure for a temporary retention basin to accommodate runoff from the 14.9-acre Project lot and a separate basin that would mitigate for runoff from the 5.0-acre area with the new roadways. These calculations are for planning-level evaluations and should be updated as determined to be appropriate based on design-level measurements of the various cover types. One foot of freeboard is required above the required volumes listed below in **Tables 1** and **2** for the Main Project Lot and the roadways in the Project Area, respectively. Per Section 5.07(B), the depth of the basins must be limited so that the basins will empty by infiltration within a period of 10 days.

Table 1: Temporary Retention Basin Sizing for Main Project Lot

Cover	Surface Area	Surface Area	Runoff Coefficient	Rainfall Depth	Runoff
	(sq. ft)	(acres)		(feet)	(cu. ft)
Pond Basin	43,560	1	1	0.26	11,326
Paving	282,321	6.48	0.95	0.26	69,733
Roof	217,466	4.99	0.8	0.26	45,233
Comp. Earth	26,136	0.60	0.75	0.26	5,097
Lawn & Landscape	79,591	1.83	0.2	0.26	4,139
Total	**649,074**	**14.90**			**135,527**
				x2	271,054
Required volume (not inc. freeboard):				**6.22**	**ac. ft**

Table 2: Temporary Retention Basin Sizing for Roadways in Project Area

Cover	Surface Area	Surface Area	Runoff Coefficient	Rainfall Depth	Runoff
	(sq. ft)	(acres)		(feet)	(cu. ft)
Pond Basin	43,560	0.3	1	0.26	11,326
Paving	108,900	2.50	0.95	0.26	26,898
Roof	-	0.00	0.8	0.26	-
Comp. Earth	21,780	0.50	0.75	0.26	4,247
Lawn & Landscape	74,052	1.70	0.2	0.26	3,851
Total	**217,800**	**5.00**			**46,322**
				x2	92,643
Required volume (not inc. freeboard):				**2.13**	**ac. ft**

The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Conservation Service (SCS) soil data states that the expected saturate hydraulic conductivity at the Project site is equivalent to 0.06 inch per hour.[2] Typically, the maximum infiltration rate that can be assumed for a planning study is one-half of the saturated hydraulic conductivity, or 0.03 inch per hour. The low saturated hydraulic conductivity value would make reliance on infiltration to drain the basin within 10 days infeasible unless site-specific infiltration testing were to reveal that actual soil conditions would support a higher design infiltration rate. A geotechnical engineer should review site boring data in order to provide an opinion regarding the likelihood of site-specific tests showing a higher infiltration rate. To comply with the Design Standards, alternative means to drain the temporary retention basin within 10 days would need to be available if infiltration rates are not adequate.

MASTER PLAN CONCEPT

The 2012 Citywide Storm Drainage Master Plan (CSDMP) included the Project site within Subbasin L13 of the Lammers Watershed. The site had been expected to drain through Subbasin L14 into Detention Basin (DET) LW6. The concept that had been presented in the 2012 CSDMP was maintained in the Final Draft of the CSDMP Update. It is planned to drain DET LW6 into a system tributary to the BBID drainage system.

The primary issues with the concept presented in the 2012 CSDMP are that: 1) DET LW6 was undersized based on appropriate design assumptions that are discussed in detail in the Final Draft of the CSDMP Update; and 2) provisions to convey peak discharges from the Project site to DET LW6 had not been included.

As a result of the challenges associated with conveying peak flows to DET LW6, as well as with the inadequate capacity in DET LW6 (as currently configured) to accommodate runoff from the Project, it may now be advantageous for the Project to include permanent stormwater detention

[2] See Figure 17 in the 2021 Final Draft Citywide Storm Drainage Master Plan Update.

on-site. This would limit site runoff to its share of the capacity in the BBID drainage system, rather than having the permanent stormwater detention for the Project in DET LW6.

DISCHARGES INTO THE BBID DRAINAGE SYSTEM

Discharges into the BBID system are subject to the conditions detailed in the *2010 Drainage Agreement between the City of Tracy and the West Side Irrigation District*. The 2010 Agreement with the West Side Irrigation District (WSID) transferred to BBID. The 2010 Agreement allows up to 30 cubic feet per second (cfs) to be discharged from the Lammers Area as long as the maximum City discharge to the Main Drain[3] from all sources does not exceed 145 cfs. The Lammers Area covers approximately 8.6 square miles and includes the Cordes Ranch and Westside Ranch planning areas, the existing Costco and Safeway sites located south of West Schulte Road and west of the Delta Mendota Canal, and other areas (including the Project area). The Lammers Area is shown as draining towards detention basins LW1 through LW15 on Figure 27 in the CSDMP Update.

To stay within the 30-cfs discharge limitation, the sum of the peak discharges from the detention basins into the system that drains into the Sub-Main Drain cannot exceed 30 cfs. The allocation of capacity to each basin is generally calculated by tributary area, although it can be adjusted to consider the planned imperviousness of the tributary area and the rate at which water will infiltrate into the soils at the detention basin. Locations found to have relatively higher infiltration rates can support design of smaller basins with lower pumped or gravity outflows, as compared to basins at locations with lower infiltration rates. For planning purposes, a peak outflow rate of 0.01 cfs per tributary acre of typical commercial development can be assumed. Some variations from this may be determined to be appropriate for final design.

As discussed in the CSDMP Update, it is probable that there will be times when the discharge of runoff from the City through the Grant Line Road storm drain into the Main Drain will be approximately 145 cfs. During peak flow conditions when flows in the Main Drain are already close to 145 cfs, the discharge of an additional 30 cfs from the Lammers Area could violate the terms of the 2010 agreement. To manage conditions that could cause excessive flows in the Main Drain, it is recommended that plans be in place to turn off pumps and curtail gravity discharges from the Lammers Area as are determined to be necessary in order to avoid violations of the 2010 Agreement.

ON-SITE STORMWATER DETENTION CAPACITY

The detention basin sizing procedure detailed in Section 5.2.1 of the Final Draft CSDMP was applied to size on-site stormwater detention basins using the same assumptions for tributary areas that were used in the Temporary Retention Requirement section of this TM. Both basins were sized assuming that small pumps would be used to control outflows. Key parameters used in the basin sizing process are included below in **Table 3**. Alternative configurations could be evaluated in the design process. Site-specific infiltration tests should be used to form a basis for

[3] See Figures 2 and 6 in the 2021 Final Draft Citywide Storm Drainage Master Plan Update for maps of facilities and major drainage areas.

design and to determine if infiltration could be used to manage some runoff in order to help meet stormwater quality management requirements.

Table 3: Permanent Detention Basin Sizing

Parameter	Unit	Project Lot	Roadway Area
Tributary area	acres	14.9	5.0
Imperviousness		0.77	0.50
Depth	feet	9	6
Side slope	H:1V	4	4
Infiltration rate	inches per hour	0.03	0.03
Pumping rate	cfs	0.15	0.05
Volume with freeboard	acre-feet	4.2	1.1
Top area (no buffer)	acres	0.72	0.29

The facility sizes listed in Table 3 do not address stormwater quality treatment requirements. However, treatment requirements could be readily addressed by adding drain rock and a biofiltration layer below the bottom of the basins. The pumps can be configured to withdraw water from an underdrain (perforated pipe) placed in the rock layer. Landscape planning would need to consider the potential duration of inundation from both relatively frequent events and larger, infrequent events. Though much more expensive to construct, options for underground storage (such as large diameter corrugated metal pipe) are also available. The on-site permanent detention basins, if used, could connect to the 18-inch storm drain currently planned for West Schulte Road without requiring any additional capacity.

If on-site detention basins are not used, on-site stormwater quality treatment measures would still be required, and the receiving storm drains would need to have sufficient capacity to convey 100-year runoff to DET LW6. DET LW6 would need to be expanded as determined to be necessary to accommodate the runoff from the Project area.

CONVEYANCE TO DET LW6 NEEDED FOR PEAK DISCHARGES WITHOUT ON-SITE DETENTION

Peak discharges from the Project site would need to be conveyed approximately 9,000 feet to DET LW6 if on-site detention is not constructed. If on-site detention is used to attenuate discharges to the allowable discharge rate into the BBID system, no additional conveyance would be required. However, if on-site facilities are only adequate to accommodate water quality flows, peak discharges from a 100-year storm would need to be conveyed to DET LW6. Based on the assumption that the surcharging of stormwater quality bioretention basins would result in the Project site having a time of concentration of 60 minutes, peak flows from the site could be computed using a rainfall intensity of 0.847 inch per hour[4]. According to Section 5.04

[4] See Grid 10 in Figure 9 of the Final Draft Citywide Storm Drainage Master Plan Update.

of the Design Standards, the design discharge rate would be 14 cfs for the Project area of 20.6 acres based on a runoff coefficient of 0.8 for commercial development. The discharge of 14 cfs would exceed the capacity of the existing 18-inch storm drain. A new 24-inch storm drain would be required to convey 14 cfs from the Project site to DET LW6. At a cost of $300 per foot, 9,000 feet of pipe would cost $2,700,000.

PEAK FLOW ATTENUATION OPTION

A potential third alternative would include providing sufficient on-site detention to limit peak 100-year discharges from the Project area to the capacity of the existing storm drain from the vicinity of Project to DET LW6, then providing all of the attenuation necessary to limit discharges to the capacity of the BBID system at DET LW6. This option would require significant amounts of detention at the Project site without reducing the detention necessary at DET LW6. If the applicant determines that this option would have advantages, the proposed configuration would be reviewed to determine if it meets the various design requirements.

APPENDIX C

Stormwater Quality Control Plan

RECEIVED
January 18, 2022
City of Tracy
Development Services

SCHULTE RD. PARKING LOT

16286 W. Schulte Road
Tracy, CA 95377

STORMWATER QUALITY CONTROL PLAN (SWQCP)

Prepared For:

PANATTONI DEVELOPMENT COMPANY, INC.
8775 Folsom Blvd.
Sacramento, CA 95826
Contact: Abbie Wertheim
(916) 379-1109

Prepared By:

SIEGFRIED

3428 Brookside Road
Stockton, CA 95219
(209) 943-2021

Date Prepared: January 14, 2022

I. Attachments

Attachment 1 – Bioretention Sizing Worksheet

Attachment 2 – DMA Exhibits

ATTACHMENT 1

BIORETENTION SIZING WORKSHEET

SIEGFRIED
3244 Brookside Road, Suite 100
Stockton, CA 95219
209.943.2021 Fax: 209.942.0214

Job Number: 20174
Project Name: Schulte Rd. Parking Lot
Workbook Name: Bioretention Area SQDV Calculation
Sheet Name: Post-Site
Date: 1/14/2022
Author: ARM

Post-Site

Site Parameters

Mean Annual Runoff-Producing Rainfall Depth (P_6):	0.33	in
Regression Coefficient (a):	1.963	
Site Design Measure Credits:	0.0	ft^3
Maximum Drawdown Time:	48	hr

Bioretention Area Properties

Bioretention Planting Zone Area:	10,000.0	ft^2
Open Space Initial Area:	238,365.0	ft^2
Ponding Depth:	12.0	in
=	1.000	ft
Planting Media Layer Depth:	1.50	ft
Planting Media Layer Porosity:	0.25	
Planting Media Infiltration Rate:	0.50	in/hr
Gravel Layer Depth:	1.00	ft
Gravel Layer Porosity:	0.40	
Gravel Layer Infiltration Rate:	1.00	in/hr
Total Infiltration Rate:	0.63	in/hr

$$f_{design,eq} = \frac{\sum d_i}{\sum\left(\frac{d_i}{f_{s,i}}\right)} = \frac{d_{pz} + d_{gl}}{\frac{d_{pz}}{f_{pz}} + \frac{d_{gl}}{f_{gl}}}$$

SIEGFRIED
3244 Brookside Road, Suite 100
Stockton, CA 95219
209.943.2021 Fax: 209.942.0214

Job Number: 20174
Project Name: Schulte Rd. Parking Lot
Workbook Name: Bioretention Area SQDV Calculation
Sheet Name: Post-Site
Date: 1/14/2022
Author: ARM

Imperviousness Calculation

Site Element	Element Area (ft^2)	% Imperviousness	Weighting Factor	Weighted % Imperviousness
Landscape	228,365	25%	0.3542	8.86%
Concrete/AC	405,692	95%	0.6293	59.78%
Roof	636	95%	0.0010	0.09%
Bioretention	10,000	100%	0.0155	1.55%
Total	644,693			70.28%

Runoff Coefficient:	0.497		$C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$
Unit Stormwater Volume:	0.322	in	$P_0 = (a \times C) \times P_6$
SDV:	17,281.4	ft^3	$SDV = A \times \frac{P_0}{12}$
Adjusted SDV:	17,281.4	ft^3	
Bottom Surface Area Required:	9,736.0	ft^2	$A_s = \frac{SDV_{adj}}{d_{pz} + (\eta_{pm} \times d_{pm}) + (\eta_{gl} \times d_{gl})}$
Bottom Surface Area Required - Planting Zone Area:	-264.0	ft^2	
Infiltration Time Check (Good if Negative) (ft):	-0.73		$d_{pz} + (\eta_{pm} \times d_{pm}) + (\eta_{gl} \times d_{gl}) \leq \frac{f_{design}}{12} \times t_{\max}$

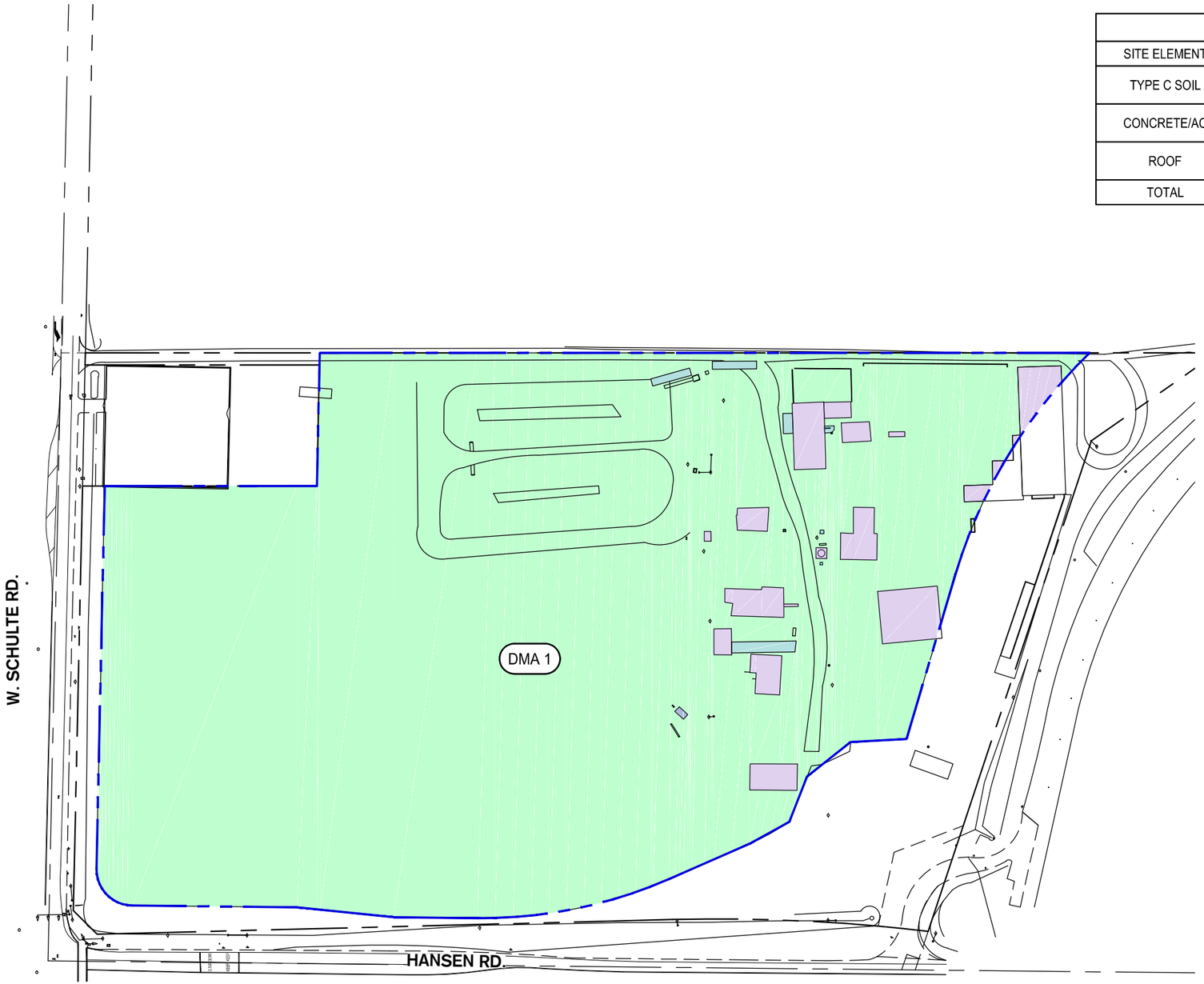
Stormwater Volume Managed by Bioretention: 17,750.0 ft^3

$$SDV_{design} = A_{design} \times [d_{pz} + (\eta_{pz} \times d_{pm}) + (\eta_{gl} \times d_{gl})]$$

ATTACHMENT 2

DMA EXHIBITS

PRE-PROJECT RUNOFF COEFFICIENT				
SITE ELEMENT	RUNOFF COEFFICIENT	AREA (SF)	FRACTION OF TOTAL AREA	WEIGHTED RUNOFF COEFF.
TYPE C SOIL	0.05	618,421	0.96	0.05
CONCRETE/AC	0.95	2,597	0.00	0.00
ROOF	0.95	23,675	0.04	0.03
TOTAL		644,693	1.00	0.08



LEGEND

- UNDEVELOPED/SOIL
- EXISTING CONCRETE
- EXISTING ROOF
- DRAINAGE MANAGEMENT AREA

0' 75' 150' 300'

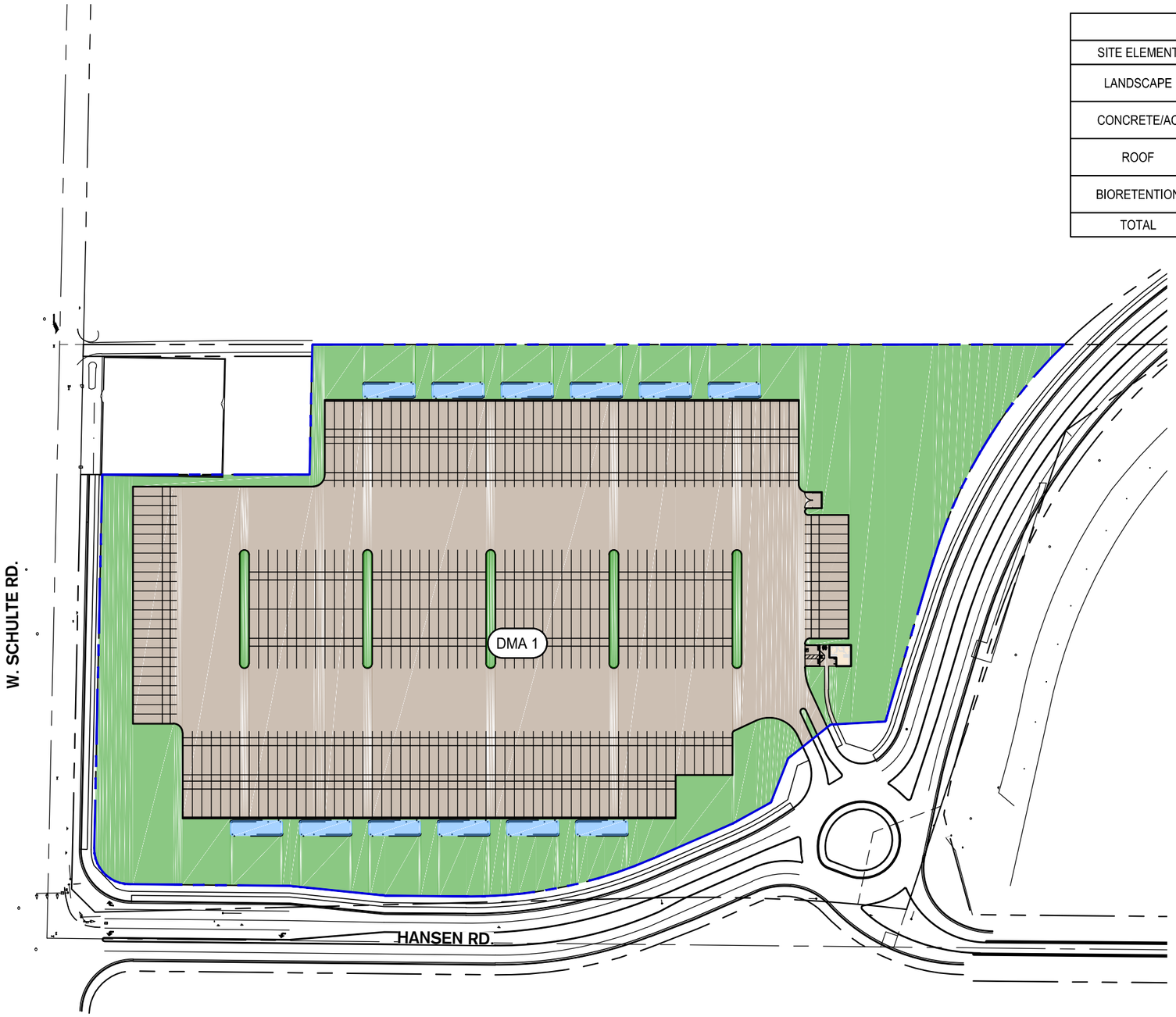
SCALE: 1"=150'

PRE-PROJECT DMA
SITE MAP AND SURFACES

SIEGFRIED

C.1

POST-PROJECT RUNOFF COEFFICIENT				
SITE ELEMENT	RUNOFF COEFFICIENT	AREA (SF)	FRACTION OF TOTAL AREA	WEIGHTED RUNOFF COEFF.
LANDSCAPE	0.25	228,365	0.35	0.09
CONCRETE/AC	0.95	405,692	0.63	0.60
ROOF	0.95	636	0.00	0.00
BIORETENTION	1.00	10,000	0.02	0.01
TOTAL		644,693	1.00	0.70



LEGEND

- LANDSCAPE
- CONCRETE
- ROOF
- TREATMENT
- DRAINAGE MANAGEMENT AREA

0' 75' 150' 300'

SCALE: 1"=150'

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POST-PROJECT DMA
SITE MAP AND SURFACES

C.2

RECEIVED
January 18, 2022
City of Tracy
Development Services

SCHULTE RD. WAREHOUSE

16286 W. Schulte Road
Tracy, CA 95377

STORMWATER QUALITY CONTROL PLAN (SWQCP)

Prepared For:

PANATTONI DEVELOPMENT COMPANY, INC.
8775 Folsom Blvd.
Sacramento, CA 95826
Contact: Abbie Wertheim
(916) 379-1109

Prepared By:

SIEGFRIED

3428 Brookside Road
Stockton, CA 95219
(209) 943-2021

Date Prepared: January 14, 2022

I. Attachments

Attachment 1 – Bioretention Sizing Worksheet

Attachment 2 – DMA Exhibits

ATTACHMENT 1

BIORETENTION SIZING WORKSHEET

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3244 Brookside Road, Suite 100
Stockton, CA 95219
209.943.2021 Fax: 209.942.0214

Job Number: 20174
Project Name: Schulte Rd. Warehouse
Workbook Name: Bioretention Area SQDV Calculation
Sheet Name: Post-Site
Date: 1/14/2022
Author: ARM

Post-Site

Site Parameters

Mean Annual Runoff-Producing Rainfall Depth (P_6):	0.33	in
Regression Coefficient (a):	1.963	
Site Design Measure Credits:	0.0	ft^3
Maximum Drawdown Time:	48	hr

Bioretention Area Properties

Bioretention Planting Zone Area:	12,000.0	ft^2
Open Space Initial Area:	159,395.0	ft^2
Ponding Depth:	12.0	in
=	1.000	ft
Planting Media Layer Depth:	1.50	ft
Planting Media Layer Porosity:	0.25	
Planting Media Infiltration Rate:	0.50	in/hr
Gravel Layer Depth:	1.00	ft
Gravel Layer Porosity:	0.40	
Gravel Layer Infiltration Rate:	1.00	in/hr
Total Infiltration Rate:	0.63	in/hr

$$f_{design,eq} = \frac{\sum d_i}{\sum\left(\frac{d_i}{f_{s,i}}\right)} = \frac{d_{pz} + d_{gl}}{\frac{d_{pz}}{f_{pz}} + \frac{d_{gl}}{f_{gl}}}$$

SIEGFRIED
3244 Brookside Road, Suite 100
Stockton, CA 95219
209.943.2021 Fax: 209.942.0214

Job Number: 20174
Project Name: Schulte Rd. Warehouse
Workbook Name: Bioretention Area SQDV Calculation
Sheet Name: Post-Site
Date: 1/14/2022
Author: ARM

Imperviousness Calculation

Site Element	Element Area (ft^2)	% Imperviousness	Weighting Factor	Weighted % Imperviousness
Landscape	147,395	25%	0.2286	5.72%
Concrete/AC	267,832	95%	0.4154	39.47%
Roof	217,466	95%	0.3373	32.05%
Bioretention	12,000	100%	0.0186	1.86%
Total	644,693			79.09%

Runoff Coefficient:	0.589		$C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$
Unit Stormwater Volume:	0.381	in	$P_0 = (a \times C) \times P_6$
SDV:	20,488.5	ft^3	$SDV = A \times \frac{P_0}{12}$
Adjusted SDV:	20,488.5	ft^3	
Bottom Surface Area Required:	11,542.8	ft^2	$A_s = \frac{SDV_{adj}}{d_{pz} + (\eta_{pm} \times d_{pm}) + (\eta_{gl} \times d_{gl})}$
Bottom Surface Area Required - Planting Zone Area:	-457.2	ft^2	
Infiltration Time Check (Good if Negative) (ft):	-0.73		$d_{pz} + (\eta_{pm} \times d_{pm}) + (\eta_{gl} \times d_{gl}) \leq \frac{f_{design}}{12} \times t_{\max}$

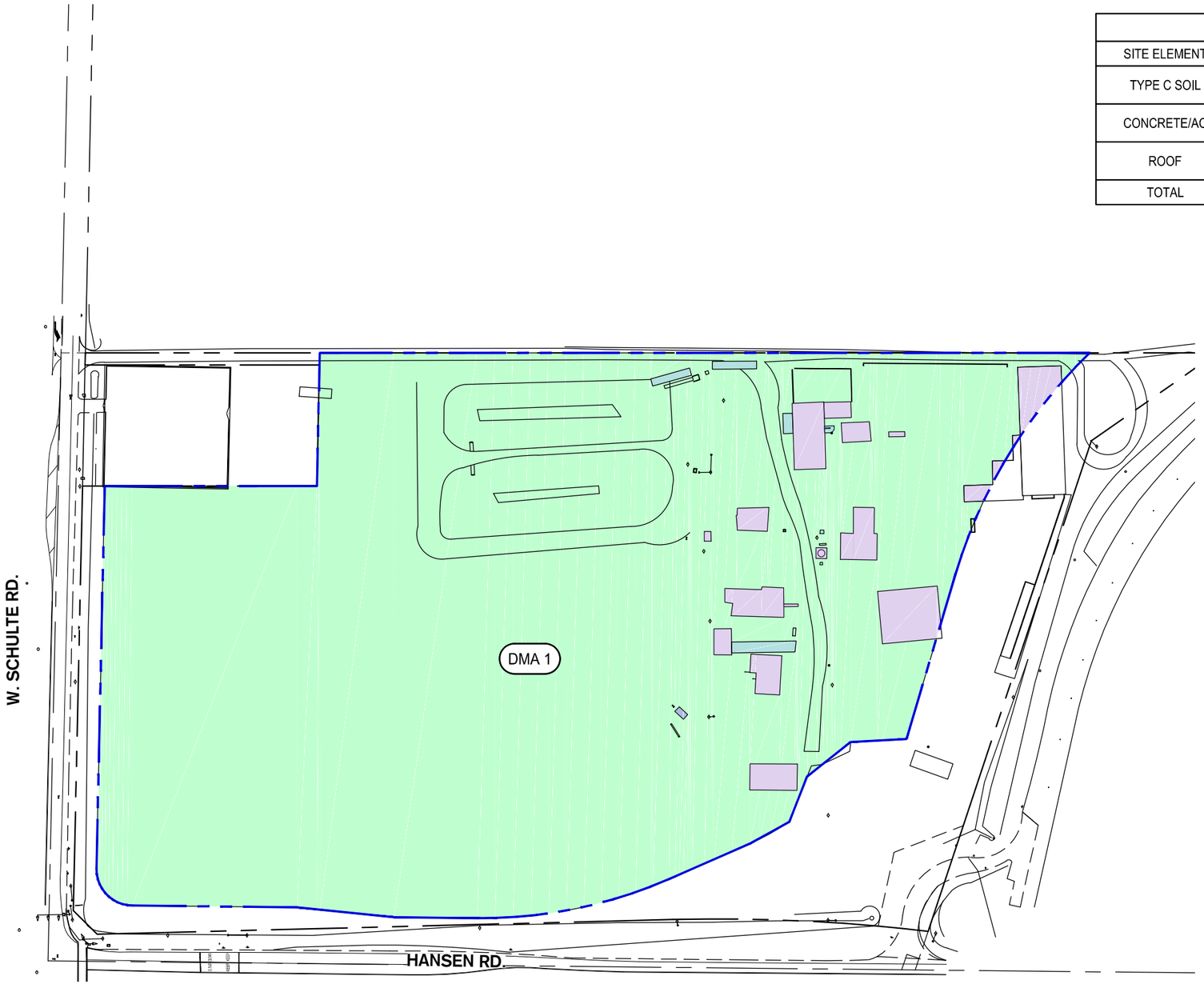
Stormwater Volume Managed by Bioretention: 21,300.0 ft^3

$$SDV_{design} = A_{design} \times [d_{pz} + (\eta_{pz} \times d_{pm}) + (\eta_{gl} \times d_{gl})]$$

ATTACHMENT 2

DMA EXHIBITS

PRE-PROJECT RUNOFF COEFFICIENT				
SITE ELEMENT	RUNOFF COEFFICIENT	AREA (SF)	FRACTION OF TOTAL AREA	WEIGHTED RUNOFF COEFF.
TYPE C SOIL	0.05	618,421	0.96	0.05
CONCRETE/AC	0.95	2,597	0.00	0.00
ROOF	0.95	23,675	0.04	0.03
TOTAL		644,693	1.00	0.08



LEGEND

- UNDEVELOPED/SOIL
- EXISTING CONCRETE
- EXISTING ROOF
- DRAINAGE MANAGEMENT AREA

0' 75' 150' 300'

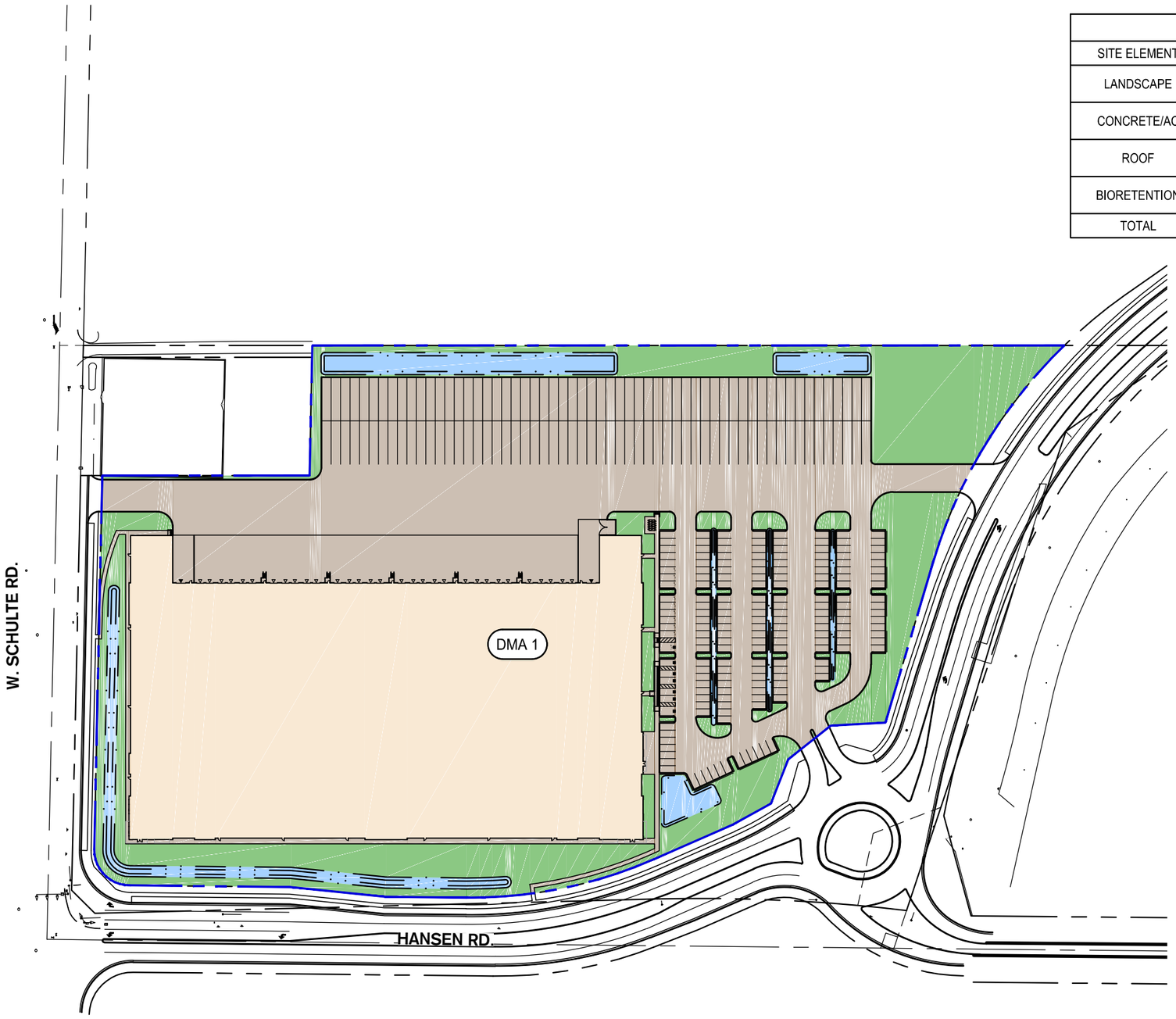
SCALE: 1"=150'

PRE-PROJECT DMA
SITE MAP AND SURFACES

SIEGFRIED

C.1

POST-PROJECT RUNOFF COEFFICIENT				
SITE ELEMENT	RUNOFF COEFFICIENT	AREA (SF)	FRACTION OF TOTAL AREA	WEIGHTED RUNOFF COEFF.
LANDSCAPE	0.25	147,395	0.23	0.06
CONCRETE/AC	0.95	267,832	0.41	0.39
ROOF	0.95	217,466	0.34	0.32
BIORETENTION	1.00	12,000	0.02	0.02
TOTAL		644,693	1.00	0.79



LEGEND

- LANDSCAPE
- CONCRETE
- ROOF
- TREATMENT
- DRAINAGE MANAGEMENT AREA

0' 75' 150' 300'

SCALE: 1"=150'

POST-PROJECT DMA
SITE MAP AND SURFACES

SIEGFRIED

C.2

ROB BONTA
Attorney General

State of California
DEPARTMENT OF JUSTICE

1300 I STREET, SUITE 125
P.O. BOX 944255
SACRAMENTO, CA 94244-2550

E-Mail: EJ@doj.ca.gov

December 20, 2023

Scott Claar, Senior Planner
City of Tracy
333 Civic Center Plaza
Tracy, CA 95376

RE: Schulte Road Warehouse Project, SCH #2023120437

Dear Mr. Claar:

Thank you for the opportunity to provide comments on the Notice of Preparation for the Schulte Road Warehouse Project. While the logistics industry is an important component of our modern economy, warehouses can bring various environmental impacts to the communities where they are located. For example, diesel trucks visiting warehouses emit nitrogen oxide (NO_x)—a primary precursor to smog formation and a significant factor in the development of respiratory problems like asthma, bronchitis, and lung irritation—and diesel particulate matter (a subset of fine particular matter that is smaller than 2.5 micrometers)—a contributor to cancer, heart disease, respiratory illnesses, and premature death.[1] Trucks and on-site loading activities can also be loud, bringing disruptive noise levels during 24/7 operation that can cause hearing damage after prolonged exposure.[2] The hundreds, and sometimes thousands, of daily truck and passenger car trips that warehouses generate can contribute to traffic jams, deterioration of road surfaces, traffic accidents, and unsafe conditions for pedestrians and bicyclists. Depending on the circumstances of an individual project, warehouses may also have other environmental impacts.

To help lead agencies avoid, analyze, and mitigate warehouses' environmental impacts, the Attorney General Office's Bureau of Environmental Justice has published a document containing best practices and mitigation measures for warehouse projects. We have attached a

[1] California Air Resources Board, Nitrogen Dioxide & Health, https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health (NOx); California Air Resources Board, Summary: Diesel Particular Matter Health Impacts, https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts; Office of Environmental Health Hazard Assessment and American Lung Association of California, Health Effects of Diesel Exhaust, https://oehha.ca.gov/media/downloads/calenviroscreen/indicators/diesel4-02.pdf (DPM).

[2] Noise Sources and Their Effects, https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm (a diesel truck moving 40 miles per hour, 50 feet away, produces 84 decibels of sound).

copy of this document to this letter, and it is also available online.[3] We encourage you to consider the information in this document as you prepare the draft environmental impact report for this project.

Priority should be placed on avoiding land use conflicts between warehouses and sensitive receptors and on mitigating the impacts of any unavoidable land use conflicts. However, even projects located far from sensitive receptors may contribute to harmful regional air pollution, so you should consider measures to reduce emissions associated with the project to help the State meet its air quality goals. A distant warehouse may also impact sensitive receptors if trucks must pass near sensitive receptors to visit the warehouse.

The Bureau will continue to monitor proposed warehouse projects for compliance with the California Environmental Quality Act and other laws. We are available to discuss as you prepare the draft environmental impact report and consider how to guide warehouse development in your jurisdiction. Please do not hesitate to contact the Environmental Justice Bureau at ej@doj.ca.gov if you have any questions.

Sincerely,

CHRISTIE VOSBURG
Supervising Deputy Attorney General

For ROB BONTA
Attorney General

[3] https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf.

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ROB BONTA
Attorney General

State of California
DEPARTMENT OF JUSTICE

Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act

Table of Contents

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II. Proactive Planning: General Plans, Local Ordinances, and Good Neighbor Policies 3
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In carrying out its duty to enforce laws across California, the California Attorney General's Bureau of Environmental Justice (Bureau)[1] regularly reviews proposed warehouse projects for compliance with the California Environmental Quality Act (CEQA) and other laws. When necessary, the Bureau submits comment letters to lead agencies regarding warehouse projects, and in rare cases the Bureau has filed litigation to enforce CEQA.[2] This document builds upon the Bureau's work on warehouse projects, collecting information gained from the Bureau's review of hundreds of warehouse projects across the state.[3] It is meant to help lead agencies pursue CEQA compliance and promote environmentally-just development as they confront warehouse project proposals.[4] While CEQA analysis is necessarily project-specific, this document provides information on feasible best practices and mitigation measures, nearly all of which have been adapted from actual warehouse projects in California.

I. Background

In recent years, the proliferation of e-commerce and rising consumer expectations of rapid shipping have contributed to a boom in warehouse development.[5] California, with its ports, population centers, and transportation network, has found itself at the center of this trend. In 2020, the Ports of Los Angeles, Long Beach, and Oakland collectively accounted for over 34% of all United States international container trade.[6] The Ports of Los Angeles and Long Beach alone generate about 35,000 container truck trips every day.[7] Accordingly, the South Coast Air Basin now contains approximately 3,000 warehouses of over 100,000 square feet each, with a total warehouse capacity of approximately 700 million square feet, an increase of 20 percent over the last five years.[8] This trend has only accelerated, with e-commerce growing to

[1] https://oag.ca.gov/environment/justice.
[2] https://oag.ca.gov/environment/ceqa; *People of the State of California v. City of Fontana* (Super. Ct. San Bernardino County, No. CIVSB2121829); *South Central Neighbors United et al. v. City of Fresno et al.* (Super. Ct. Fresno County, No. 18CECG00690).
[3] This September 2022 version revises and replaces the prior March 2021 version of this document.
[4] Anyone reviewing this document to determine CEQA compliance responsibilities should consult their own attorney for legal advice.
[5] As used in this document, "warehouse" or "logistics facility" is defined as a facility consisting of one or more buildings that stores cargo, goods, or products on a short- or long-term basis for later distribution to businesses and/or retail customers.
[6] Data from the Bureau of Transportation Statistics, Container TEUs (Twenty-foot Equivalent Units) (2020), https://data.bts.gov/stories/s/Container-TEU/x3fb-aeda/ (Ports of Los Angeles, Long Beach, and Oakland combined for 14.157 million TEUs, 34% of 41.24 million TEUs total nationwide) (last accessed September 18, 2022).
[7] U.S. Dept. of Transportation, Federal Highway Administration, *FHWA Operations Support – Port Peak Pricing Program Evaluation* (2020), available at https://ops.fhwa.dot.gov/publications/fhwahop09014/sect2.htm (last accessed September 18, 2022).
[8] South Coast Air Qual. Mgmt. Dist., *Final Socioeconomic Assessment for Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Proposed Rule 316 – Fees for Rule 2305*, at 7-8, 41 (May 2021).

13% of all retail sales and 2021 being a second consecutive record year for new warehouse space leased.[9] The latest data and forecasts predict that the next wave of warehouse development will be in the Central Valley.[10]

When done properly, these activities can contribute to the economy and consumer welfare. However, imprudent warehouse development can harm local communities and the environment. Among other pollutants, diesel trucks visiting warehouses emit nitrogen oxide (NO_x)—a primary precursor to smog formation and a significant factor in the development of respiratory problems like asthma, bronchitis, and lung irritation—and diesel particulate matter (a subset of fine particular matter that is smaller than 2.5 micrometers)—a contributor to cancer, heart disease, respiratory illnesses, and premature death.[11] Trucks and on-site loading activities can also be loud, bringing disruptive noise levels during 24/7 operation that can cause hearing damage after prolonged exposure.[12] The hundreds, and sometimes thousands, of daily truck and passenger car trips that warehouses generate contribute to traffic jams, deterioration of road surfaces, and traffic accidents.

These environmental impacts also tend to be concentrated in neighborhoods already suffering from disproportionate health impacts and systemic vulnerability. For example, a comprehensive study by the South Coast Air Quality Management District found that communities located near large warehouses scored far higher on California's environmental justice screening tool, which measures overall pollution and demographic vulnerability.[13] That

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[9] U.S. Census Bureau News, Quarterly Retail E-Commerce Sales 4th Quarter 2021 (February 22, 2022), https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf (last accessed September 18, 2022); CBRE Research, *2022 North America Industrial Big Box Report: Review and Outlook*, at 2-3 (March 2022), *available at* https://www.cbre.com/insights/reports/2022-north-america-industrial-big-box#download-report (last accessed September 18, 2022).

[10] CBRE Research, *supra note* 9, at 4, 36; New York Times, *Warehouses Are Headed to the Central Valley, Too* (Jul. 22, 2020), *available* at https://www.nytimes.com/2020/07/22/us/coronavirus-ca-warehouse-workers.html.

[11] California Air Resources Board, Nitrogen Dioxide & Health, https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health (last accessed September 18, 2022) (NOx); California Air Resources Board, Summary: Diesel Particular Matter Health Impacts, https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts (last accessed September 18, 2022); Office of Environmental Health Hazard Assessment and American Lung Association of California, Health Effects of Diesel Exhaust, https://oehha.ca.gov/media/downloads/calenviroscreen/indicators/diesel4-02.pdf (last accessed September 18, 2022) (DPM).

[12] Noise Sources and Their Effects, https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm (last accessed September 18, 2022) (a diesel truck moving 40 miles per hour, 50 feet away, produces 84 decibels of sound).

[13] South Coast Air Quality Management District, "Final Socioeconomic Assessment for Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Proposed Rule 316 – Fees for Rule 2305" (May 2021), at 4-5.

study concluded that, compared to the South Coast Air Basin averages, communities in the South Coast Air Basin near large warehouses had a substantially higher proportion of people of color; were exposed to more diesel particulate matter; had higher rates of asthma, cardiovascular disease, and low birth weights; and had higher poverty and unemployment rates.[14] Each area has its own unique history, but many of these impacts and vulnerabilities reflect historic redlining practices in these communities, which devalued land and concentrated poverty, racial outgroups, and pollution into designated areas.[15]

II. Proactive Planning: General Plans, Local Ordinances, and Good Neighbor Policies

To systematically guide warehouse development, we encourage local governing bodies to proactively plan for logistics projects in their jurisdictions. Proactive planning allows jurisdictions to prevent land use conflicts before they materialize and direct sustainable development. Benefits also include providing a predictable business environment, protecting residents from environmental harm, and setting consistent expectations jurisdiction-wide.

Proactive planning can take many forms. Land use designation and zoning decisions should channel development into appropriate areas. For example, establishing industrial districts near major highway and rail corridors but away from sensitive receptors[16] can help attract investment while avoiding conflicts between warehouse facilities and residential communities. Transition zones with lighter industrial and commercial land uses may also help minimize conflicts between residential and industrial uses.

In addition, general plan policies, local ordinances, and good neighbor policies should set minimum standards for logistics projects. General plan policies can be incorporated into existing economic development, land use, circulation, or other related general plan elements. Many jurisdictions alternatively choose to consolidate policies in a separate environmental justice element. Adopting general plan policies to guide warehouse development may also help

---

[14] *Id*. at 5-7.

[15] Beginning in the 1930s, federal housing policy directed investment away from Black, immigrant, and working-class communities by color-coding neighborhoods according to the purported "riskiness" of loaning to their residents. In California cities where such "redlining" maps were drawn, nearly all of the communities where warehouses are now concentrated were formerly coded "red," signifying the least desirable areas where investment was to be avoided. *See* University of Richmond Digital Scholarship Lab, Mapping Inequality, https://dsl.richmond.edu/panorama/redlining/#loc=12/33.748/-118.272&city=los-angeles-ca (Los Angeles), https://dsl.richmond.edu/panorama/redlining/#loc=13/32.685/-117.132&city=san-diego-ca (San Diego), https://dsl.richmond.edu/panorama/redlining/#loc=11/37.81/-122.38&city=oakland-ca (Oakland), https://dsl.richmond.edu/panorama/redlining/#loc=13/37.956/-121.326&city=stockton-ca (Stockton), https://dsl.richmond.edu/panorama/redlining/#loc=12/36.751/-119.86&city=fresno-ca (Fresno) (all last accessed September 18, 2022).

[16] In this document, "sensitive receptors" refers to residences, schools, public recreation facilities, health care facilities, places of worship, daycare facilities, community centers, or incarceration facilities.

jurisdictions comply with their obligations under SB 1000, which requires local government general plans to identify objectives and policies to reduce health risks in disadvantaged communities, promote civil engagement in the public decision making process, and prioritize improvements and programs that address the needs of disadvantaged communities.[17]

Local ordinances and good neighbor policies that set development standards for all warehouses in the jurisdiction are a critical and increasingly common tool that serve several goals. When well-designed, these ordinances direct investment to local improvements, provide predictability for developers, conserve government resources by streamlining project review processes, and reduce the environmental impacts of industrial development. While many jurisdictions have adopted warehouse-specific development standards, an ordinance in the City of Fontana provides an example to review and build upon.[18] Good neighbor policies in Riverside County and by the Western Riverside Council of Government include additional measures worth consideration.[19]

The Bureau encourages jurisdictions to adopt their own local ordinances that combine the strongest policies from those models with measures discussed in the remainder of this document.

III. Community Engagement

Early and consistent community engagement is central to establishing good relationships between communities, lead agencies, and warehouse developers and tenants. Robust community engagement can give lead agencies access to community residents' on-the-ground knowledge and information about their concerns, build community support for projects, and develop creative solutions to ensure new logistics facilities are mutually beneficial. Examples of best practices for community engagement include:

- Holding a series of community meetings at times and locations convenient to members of the affected community and incorporating suggestions into the project design.
- Posting information in hard copy in public gathering spaces and on a website about the project. The information should include a complete, accurate project description, maps and drawings of the project design, and information about how the public can provide input and be involved in the project approval process. The

[17] For more information about SB 1000, *see* https://oag.ca.gov/environment/sb1000.
[18] https://oag.ca.gov/system/files/attachments/press-docs/Final%20Signed%20Fontana%20Ordinance.pdf (last accessed September 18, 2022).
[19] For example, the Riverside County policy requires community benefits agreements and supplemental funding contributions toward additional pollution offsets, and the Western Riverside Council of Governments policy sets a minimum buffer zone of 300 meters between warehouses and sensitive receptors. https://www.rivcocob.org/wp-content/uploads/2020/01/Good-Neighbor-Policy-F-3-Final-Adopted.pdf (last accessed September 18, 2022) (Riverside County); http://www.wrcog.cog.ca.us/DocumentCenter/View/318/Good-Neighbor-Guidelines-for-Siting-Warehouse-Distribution-Facilities-PDF?bidId= (last accessed September 18, 2022) (Western Riverside Council of Governments).

information should be in a format that is easy to navigate and understand for members of the affected community.

- Providing notice by mail to residents and schools within a certain radius of the project and along transportation corridors to be used by vehicles visiting the project, and by posting a prominent sign on the project site. The notice should include a brief project description and directions for accessing complete information about the project and for providing input on the project.
- Providing translation or interpretation in residents' native language, where appropriate.
- For public meetings broadcast online or otherwise held remotely, providing for access and public comment by telephone and supplying instructions for access and public comment with ample lead time prior to the meeting.
- Partnering with local community-based organizations to solicit feedback, leverage local networks, co-host meetings, and build support.
- Considering adoption of a community benefits agreement, negotiated with input from affected residents and businesses, by which the developer provides benefits to the affected community.
- Creating a community advisory board made up of local residents to review and provide feedback on project proposals in early planning stages.
- Identifying a person to act as a community liaison concerning on-site construction activity and operations, and providing contact information for the community liaison to the surrounding community.
- Requiring signage in public view at warehouse facilities with contact information for a local designated representative for the facility operator who can receive community complaints, and requiring any complaints to be answered by the facility operator within 48 hours of receipt.

IV. Warehouse Siting and Design Considerations

The most important consideration when planning a logistics facility is its location. Warehouses located in residential neighborhoods or near sensitive receptors expose community residents and those using or visiting sensitive receptor sites to the air pollution, noise, traffic, and other environmental impacts they generate. Therefore, placing facilities away from sensitive receptors significantly reduces their environmental and quality of life harms on local communities. The suggested best practices for siting and design of warehouse facilities does not relieve lead agencies' responsibility under CEQA to conduct a project-specific analysis of the project's impacts and evaluation of feasible mitigation measures and alternatives; lead agencies' incorporation of the best practices must be part of the impact, mitigation and alternatives analyses to meet the requirements of CEQA. Examples of best practices when siting and designing warehouse facilities include:

- Per California Air Resources Board (CARB) guidance, siting warehouse facilities so that their property lines are at least 1,000 feet from the property lines of the nearest sensitive receptors.[20]
- Providing adequate amounts of on-site parking to prevent trucks and other vehicles from parking or idling on public streets and to reduce demand for off-site truck yards.
- Establishing setbacks from the property line of the nearest sensitive receptor to warehouse dock doors, loading areas, and truck drive aisles, and locating warehouse dock doors, loading areas, and truck drive aisles on the opposite side of the building from the nearest sensitive receptors—e.g., placing dock doors on the north side of the facility if sensitive receptors are near the south side of the facility.
- Placing facility entry and exit points from the public street away from sensitive receptors—e.g., placing these points on the north side of the facility if sensitive receptors are adjacent to the south side of the facility.
- Ensuring heavy duty trucks abide by the on-site circulation plans by constructing physical barriers to block those trucks from using areas of the project site restricted to light duty vehicles or emergency vehicles only.
- Preventing truck queuing spillover onto surrounding streets by positioning entry gates after a minimum of 140 feet of space for queuing, and increasing the distance by 70 feet for every 20 loading docks beyond 50 docks.
- Locating facility entry and exit points on streets of higher commercial classification that are designed to accommodate heavy duty truck usage.
- Screening the warehouse site perimeter and onsite areas with significant truck traffic (e.g., dock doors and drive aisles) by creating physical, structural, and/or vegetative buffers that prevent or substantially reduce pollutant and noise dispersion from the facility to sensitive receptors.
- Planting exclusively 36-inch box evergreen trees to ensure faster maturity and four-season foliage.
- Requiring all property owners and successors in interest to maintain onsite trees and vegetation for the duration of ownership, including replacing any dead or unhealthy trees and vegetation.
- Posting signs clearly showing the designated entry and exit points from the public street for trucks and service vehicles.
- Including signs and drive aisle pavement markings that clearly identify onsite circulation patterns to minimize unnecessary onsite vehicle travel.
- Posting signs indicating that all parking and maintenance of trucks must be conducted within designated on-site areas and not within the surrounding community or public streets.

[20] CARB, Air Quality and Land Use Handbook: A Community Health Perspective (April 2005), at ES-1. CARB staff has released draft updates to this siting and design guidance which suggests a greater distance may be warranted in some scenarios. CARB, Concept Paper for the Freight Handbook (December 2019), *available at* https://ww2.arb.ca.gov/sites/default/files/2020-03/2019.12.12%20-%20Concept%20Paper%20for%20the%20Freight%20Handbook_1.pdf (last accessed September 18, 2022).

V. Air Quality and Greenhouse Gas Emissions Analysis and Mitigation

Emissions of air pollutants and greenhouse gases are often among the most substantial environmental impacts from new warehouse facilities. CEQA compliance demands a proper accounting of the full air quality and greenhouse gas impacts of logistics facilities and adoption of all feasible mitigation of significant impacts. Although efforts by CARB and other authorities to regulate the heavy-duty truck and off-road diesel fleets have made excellent progress in reducing the air quality impacts of logistics facilities, the opportunity remains for local jurisdictions to further mitigate these impacts at the project level. Lead agencies and developers should also consider designing projects with their long-term viability in mind. Constructing the necessary infrastructure to prepare for the zero-emission future of goods movement not only reduces a facility's emissions and local impact now, but it can also save money as demand for zero-emission infrastructure grows. In planning new logistics facilities, the Bureau strongly encourages developers to consider the local, statewide, and global impacts of their projects' emissions.

Examples of best practices when studying air quality and greenhouse gas impacts include:

- Fully analyzing all reasonably foreseeable project impacts, including cumulative impacts. In general, new warehouse developments are not ministerial under CEQA because they involve public officials' personal judgment as to the wisdom or manner of carrying out the project, even when warehouses are permitted by a site's applicable zoning and/or general plan land use designation.[21]
- When analyzing cumulative impacts, thoroughly considering the project's incremental impact in combination with past, present, and reasonably foreseeable future projects, even if the project's individual impacts alone do not exceed the applicable significance thresholds.
- Preparing a quantitative air quality study in accordance with local air district guidelines.
- Preparing a quantitative health risk assessment in accordance with California Office of Environmental Health Hazard Assessment and local air district guidelines.
- Refraining from labeling compliance with CARB or air district regulations as a mitigation measure—compliance with applicable regulations is required regardless of CEQA.
- Disclosing air pollution from the entire expected length of truck trips. CEQA requires full public disclosure of a project's anticipated truck trips, which entails calculating truck trip length based on likely truck trip destinations, rather than the distance from the facility to the edge of the air basin, local jurisdiction, or other truncated endpoint. All air pollution associated with the project must be considered, regardless of where those impacts occur.

[21] CEQA Guidelines § 15369.

- Accounting for all reasonably foreseeable greenhouse gas emissions from the project, without discounting projected emissions based on participation in California's Cap-and-Trade Program.

Examples of measures to mitigate air quality and greenhouse gas impacts from construction are below. To ensure mitigation measures are enforceable and effective, they should be imposed as permit conditions on the project where applicable.

- Requiring off-road construction equipment to be hybrid electric-diesel or zero-emission, where available, and all diesel-fueled off-road construction equipment to be equipped with CARB Tier IV-compliant engines or better, and including this requirement in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant construction equipment for use prior to any ground-disturbing and construction activities.
- Prohibiting off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day.
- Using electric-powered hand tools, forklifts, and pressure washers, and providing electrical hook ups to the power grid rather than use of diesel-fueled generators to supply their power.
- Designating an area in the construction site where electric-powered construction vehicles and equipment can charge.
- Limiting the amount of daily grading disturbance area.
- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.
- Forbidding idling of heavy equipment for more than three minutes.
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications.
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.
- Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L.
- Providing information on transit and ridesharing programs and services to construction employees.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations for construction employees.

Examples of measures to mitigate air quality and greenhouse gas impacts from operation include:

- Requiring all heavy-duty vehicles engaged in drayage[22] to or from the project site to be zero-emission beginning in 2030.

[22] "Drayage" refers generally to transport of cargo to or from a seaport or intermodal railyard.

- Requiring all on-site motorized operational equipment, such as forklifts and yard trucks, to be zero-emission with the necessary charging or fueling stations provided.
- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations.
- Forbidding trucks from idling for more than three minutes and requiring operators to turn off engines when not in use.
- Posting both interior- and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the local air district, and the building manager.
- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity that is equal to or greater than the building's projected energy needs, including all electrical chargers.
- Designing all project building roofs to accommodate the maximum future coverage of solar panels and installing the maximum solar power generation capacity feasible.
- Constructing zero-emission truck charging/fueling stations proportional to the number of dock doors at the project.
- Running conduit to designated locations for future electric truck charging stations.
- Unless the owner of the facility records a covenant on the title of the underlying property ensuring that the property cannot be used to provide refrigerated warehouse space, constructing electric plugs for electric transport refrigeration units at every dock door and requiring truck operators with transport refrigeration units to use the electric plugs when at loading docks.
- Oversizing electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability.
- Constructing and maintaining electric light-duty vehicle charging stations proportional to the number of employee parking spaces (for example, requiring at least 10% of all employee parking spaces to be equipped with electric vehicle charging stations of at least Level 2 charging performance)
- Running conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the project.
- Installing and maintaining, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air.
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of

trucks.

- Requiring operators to establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking.
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking.
- Designing to LEED green building certification standards.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Posting signs at every truck exit driveway providing directional information to the truck route.
- Improving and maintaining vegetation and tree canopy for residents in and around the project area.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants who own, operate, or hire trucking carriers with more than 100 trucks to use carriers that are SmartWay carriers.
- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

VI. Noise Impacts Analysis and Mitigation

The noise associated with logistics facilities can be among their most intrusive impacts to nearby sensitive receptors. Various sources, such as unloading activity, diesel truck movement, and rooftop air conditioning units, can contribute substantial noise pollution. These impacts are exacerbated by logistics facilities' typical 24-hour, seven-days-per-week operation. Construction noise is often even greater than operational noise, so if a project site is near sensitive receptors, developers and lead agencies should adopt measures to reduce the noise generated by both construction and operation activities.

Examples of best practices when studying noise impacts include:

- Preparing a noise impact analysis that considers all reasonably foreseeable project noise impacts, including to nearby sensitive receptors. All reasonably foreseeable project noise impacts encompasses noise from both construction and operations, including stationary, on-site, and off-site noise sources.
- Adopting a lower significance threshold for incremental noise increases when baseline noise already exceeds total noise significance thresholds, to account for the cumulative impact of additional noise and the fact that, as noise moves up the decibel scale, each decibel increase is a progressively greater increase in sound

pressure than the last. For example, 70 dBA is ten times more sound pressure than 60 dBA.

- Disclosing and considering the significance of short-term noise levels associated with all aspects of project operation (i.e. both on-site noise generation and off-site truck noise). Considering only average noise levels may mask noise impacts sensitive receptors would consider significant—for example, the repeated but short-lived passing of individual trucks or loading activities at night.

Examples of measures to mitigate noise impacts include:

- Constructing physical, structural, or vegetative noise barriers on and/or off the project site.
- Planning and enforcing truck routes that avoid passing sensitive receptors.
- Locating or parking all stationary construction equipment as far from sensitive receptors as possible, and directing emitted noise away from sensitive receptors.
- Verifying that construction equipment has properly operating and maintained mufflers.
- Requiring all combustion-powered construction equipment to be surrounded by a noise protection barrier
- Limiting operation hours to daytime hours on weekdays.
- Paving roads where truck traffic is anticipated with low noise asphalt.
- Orienting any public address systems onsite away from sensitive receptors and setting system volume at a level not readily audible past the property line.

VII. Traffic Impacts Analysis and Mitigation

Warehouse facilities inevitably bring truck and passenger car traffic. Truck traffic can present substantial safety issues. Collisions with heavy-duty trucks are especially dangerous for passenger cars, motorcycles, bicycles, and pedestrians. These concerns can be even greater if truck traffic passes through residential areas, school zones, or other places where pedestrians are common and extra caution is warranted.

Examples of measures to mitigate traffic impacts include:

- Designing, clearly marking, and enforcing truck routes that keep trucks out of residential neighborhoods and away from other sensitive receptors.
- Installing signs in residential areas noting that truck and employee parking is prohibited.
- Requiring preparation and approval of a truck routing plan describing the facility's hours of operation, types of items to be stored, and truck routing to and from the facility to designated truck routes that avoids passing sensitive receptors. The plan should include measures for preventing truck queuing, circling, stopping, and parking on public streets, such as signage, pavement markings, and queuing analysis and enforcement. The plan should hold facility operators responsible for violations of the truck routing plan, and a revised plan should be required from any new tenant that occupies the property before a business license

is issued. The approving agency should retain discretion to determine if changes to the plan are necessary, including any additional measures to alleviate truck routing and parking issues that may arise during the life of the facility.
- Constructing new or improved transit stops, sidewalks, bicycle lanes, and crosswalks, with special attention to ensuring safe routes to schools.
- Consulting with the local public transit agency and securing increased public transit service to the project area.
- Designating areas for employee pickup and drop-off.
- Implementing traffic control and safety measures, such as speed bumps, speed limits, or new traffic signs or signals.
- Placing facility entry and exit points on major streets that do not have adjacent sensitive receptors.
- Restricting the turns trucks can make entering and exiting the facility to route trucks away from sensitive receptors.
- Constructing roadway improvements to improve traffic flow.
- Preparing a construction traffic control plan prior to grading, detailing the locations of equipment staging areas, material stockpiles, proposed road closures, and hours of construction operations, and designing the plan to minimize impacts to roads frequented by passenger cars, pedestrians, bicyclists, and other non-truck traffic.

VIII. Other Significant Environmental Impacts Analysis and Mitigation

Warehouse projects may result in significant environmental impacts to other resources, such as to aesthetics, cultural resources, energy, geology, or hazardous materials. All significant adverse environmental impacts must be evaluated, disclosed and mitigated to the extent feasible under CEQA. Examples of best practices and mitigation measures to reduce environmental impacts that do not fall under any of the above categories include:

- Appointing a compliance officer who is responsible for implementing all mitigation measures, and providing contact information for the compliance officer to the lead agency, to be updated annually.
- Creating a fund to mitigate impacts on affected residents, schools, places of worship, and other community institutions by retrofitting their property. For example, retaining a contractor to retrofit/install HVAC and/or air filtration systems, doors, dual-paned windows, and sound- and vibration-deadening insulation and curtains.
- Sweeping surrounding streets on a daily basis during construction to remove any construction-related debris and dirt.
- Directing all lighting at the facility into the interior of the site.
- Using full cut-off light shields and/or anti-glare lighting.
- Requiring submission of a property maintenance program for agency review and approval providing for the regular maintenance of all building structures, landscaping, and paved surfaces.
- Using cool pavement to reduce heat island effects.

- Planting trees in parking areas to provide at least 35% shade cover of parking areas within fifteen years to reduce heat island impacts.
- Using light colored roofing materials with a solar reflective index of 78 or greater.
- Including on-site amenities, such as a truck operator lounge with restrooms, vending machines, and air conditioning, to reduce the need for truck operators to idle or travel offsite.
- Designing skylights to provide natural light to interior worker areas.
- Installing climate control and air filtration in the warehouse facility to promote worker well-being.

IX. Conclusion

California's world-class economy, ports, and transportation network position it at the center of the e-commerce and logistics industry boom. At the same time, California is a global leader in environmental protection and environmentally just development. The guidance in this document furthers these dual strengths, ensuring that all can access the benefits of economic development. The Bureau will continue to monitor proposed projects for compliance with CEQA and other laws. Lead agencies, developers, community advocates, and other interested parties should feel free to reach out to us as they consider how to guide warehouse development in their area.

Please do not hesitate to contact the Environmental Justice Bureau at ej@doj.ca.gov if you have any questions.

Gmail

Elise Laws <elaws@denovoplanning.com>

FW: SCH #2023120437

1 message

Scott Claar <Scott.Claar@cityoftracy.org> Wed, Jan 10, 2024 at 1:35 PM
To: Elise Laws <elaws@denovoplanning.com>
Cc: Planning Admin <PlanningAdmin@cityoftracy.org>

HI Elise,

Please see the NOP comment below from CHP.

Thanks,

Scott

From: Dyer, John@CHP <JDyer@chp.ca.gov>
Sent: Tuesday, January 9, 2024 5:01 PM
To: Scott Claar <Scott.Claar@cityoftracy.org>
Cc: CHP-EIR <EIR@chp.ca.gov>; state.clearinghouse@opr.ca.gov; Pini, Jo@CHP <JPini@chp.ca.gov>
Subject: SCH #2023120437

You don't often get email from jdyer@chp.ca.gov. Learn why this is important

Caution: This is an external email. Please take care when clicking links or opening attachments.

Good Afternoon,

The Schulte Road Warehouse Project, SCH #2023120437, will have direct impact for traffic control and traffic congestion for southern San Joaquin County and the surrounding Highways of I-580, I-5, I-205, and State Route 132. In addition, there will be an increase in heavy truck traffic and concerns for pedestrian and bicycle safety. This will lead to an increase in enforcement demands and highway construction/improvement projects.

If you have any questions please contact me.

Respectfully,

John J. Dyer, Sergeant

Tracy Area

1175 E. Pescadero Avenue

Tracy, CA 95304

16 January 2024

Scott Claar
City of Tracy
333 Civic Center Plaza
Tracy, CA 95376
Scott.Claar@cityoftracy.org

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, SCHULTE ROAD WAREHOUSE PROJECT, SCH#2023120437, SAN JOAQUIN COUNTY

Pursuant to the State Clearinghouse's 15 December 2023 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the Schulte Road Warehouse Project, located in San Joaquin County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by

the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:

https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter Minkel

Peter Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

Jose Antonio Lopez, Jr.
Sr. Land Representative, Land Department

January 8, 2024

Via E-mail

City of Tracy Development Services – Planning Division
c/o Scott Claar
333 Civic Center Plaza
Tracy, CA 95376
Scott.Claar@cityoftracy.org

Re: NOP For Schulte Warehouse Annexation - CEQA Interested Parties
CPL File Number: 2023-073

Dear Mr. Claar,

Chevron Pipe Line Company has reviewed your correspondence regarding the proposed project named **NOP For Schulte Warehouse Annexation - CEQA Interested Parties**. The project proposes the demolition of the three single-family residences and six ancillary structures and redevelopment of the Development Area with a onestory, 217,466 square foot (sf) warehouse building and a surface parking lot (see Figure 4). The 217,466-sf warehouse would include 206,593 sf of warehouse uses and 10,873-sf of office space. The City's General Plan land use designation for the project site is Industrial.

Cursory reviews of available records indicate that there are no Chevron Pipe Line Company-owned/operated facilities within the area in question.

Please remember to notify Underground Service Alert at (800) 227-2600, at least two working days before starting any excavation.

If you have any questions or need any additional information, please contact me at (925) 753-2002. When inquiring, please refer to the above-referenced file number 2023-073.

Regards,

Jose Antonio Lopez, Jr

Jose Antonio Lopez, Jr. (Tony)
Sr. Land Representative
Chevron Pipe Line Company
Office - (925) 753-2002
E-mail – tonylopez@chevron.com

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

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December 19, 2023

Scott Claar
City of Tracy
333 Civic Center Plaza
Tracy, CA 95376

Re: 2023120437, Schulte Road Warehouse Project, San Joaquin County

Dear Mr. Claar:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

cc: State Clearinghouse

S J C O G, Inc.

555 East Weber Avenue ● Stockton, CA 95202 ● (209) 235-0574 ● Email: boyd@sjcog.org

San Joaquin County Multi-Species Habitat Conservation & Open Space Plan (SJMSCP)

SJMSCP RESPONSE TO LOCAL JURISDICTION (RTLJ)
ADVISORY AGENCY NOTICE TO SJCOG, Inc.

To: Scott Claar, City of Tracy, Development Services Department

From: Laurel Boyd, SJCOG, Inc. Phone: (209) 235-0574 Email: boyd@sjcog.org

Date: December 14, 2023

Local Jurisdiction Project Title: Notice of Preparation of an EIR for the Schulte Road Warehouse Project

Assessor Parcel Number(s): 209-230-25, -26

Local Jurisdiction Project Number: N/A

Total Acres to be converted from Open Space Use: Unknown

Habitat Types to be Disturbed: Agricultural Habitat Land

Species Impact Findings: Findings to be determined by SJMSCP biologist.

Dear Mr. Claar:

SJCOG, Inc. has reviewed the project referral for the Notice of Preparation of an EIR for the Schulte Road Warehouse Project. This project consists of the demolition of three single-family residences and six ancillary structures and redevelopment of the Development Area with a one-story, 217,466 square foot warehouse building and a surface parking lot. The 217,466 square foot warehouse would include 206,593 square feet of warehouse uses and 10,873 square feet of office space. The proposed warehouse would include 31 dock level doors on the eastern side of the building. Landscaping will be provided throughout the site. The project site is located south of Schulte Road and east of Hansen Road, Tracy (APN: 209-230-25, -26).

The City of Tracy is a signatory to San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). Participation in the SJMSCP satisfies requirements of both the state and federal endangered species acts, and ensures that the impacts are mitigated below a level of significance in compliance with the California Environmental Quality Act (CEQA). The LOCAL JURISDICTION retains responsibility for ensuring that the appropriate Incidental Take Minimization Measure are properly implemented and monitored and that appropriate fees are paid in compliance with the SJMSCP. Although participation in the SJMSCP is voluntary, Local Jurisdiction/Lead Agencies should be aware that if project applicants choose against participating in the SJMSCP, they will be required to provide alternative mitigation in an amount and kind equal to that provided in the SJMSCP.

This Project is subject to the SJMSCP. This can be up to a 30 day process and it is recommended that the project applicant contact SJMSCP staff as early as possible. It is also recommended that the project applicant obtain an information package. http://www.sjcog.org

Please contact SJMSCP staff regarding completing the following steps to satisfy SJMSCP requirements:

- Schedule a SJMSCP Biologist to perform a pre-construction survey ***prior to any ground disturbance***
- SJMSCP Incidental take Minimization Measures and mitigation requirement:

1. Incidental Take Minimization Measures (ITMMs) will be issued to the project and must be signed by the project applicant prior to any ground disturbance but no later than six (6) months from receipt of the ITMMs. If ITMMs are not signed within six months, the applicant must reapply for SJMSCP Coverage. Upon receipt of signed ITMMs from project applicant, SJCOG, Inc. staff will sign the ITMMs. This is the effective date of the ITMMs.
2. Under no circumstance shall ground disturbance occur without compliance and satisfaction of the ITMMs.
3. Upon issuance of fully executed ITMMs and prior to any ground disturbance, the project applicant must:
    a. Post a bond for payment of the applicable SJMSCP fee covering the entirety of the project acreage being covered (the bond should be valid for no longer than a 6 month period); or
    b. Pay the appropriate SJMSCP fee for the entirety of the project acreage being covered; or
    c. Dedicate land in-lieu of fees, either as conservation easements or fee title; or
    d. Purchase approved mitigation bank credits.
4. Within 6 months from the effective date of the ITMMs or issuance of a building permit, whichever occurs first, the project applicant must:

a. Pay the appropriate SJMSCP for the entirety of the project acreage being covered; or
b. Dedicate land in-lieu of fees, either as conservation easements or fee title; or
c. Purchase approved mitigation bank credits.

Failure to satisfy the obligations of the mitigation fee shall subject the bond to be called.

- Receive your Certificate of Payment and release the required permit

It should be noted that if this project has any potential impacts to waters of the United States [pursuant to Section 404 Clean Water Act], it would require the project to seek voluntary coverage through the unmapped process under the SJMSCP which could take up to 90 days. It may be prudent to obtain a preliminary wetlands map from a qualified consultant. If waters of the United States are confirmed on the project site, the Corps and the Regional Water Quality Control Board (RWQCB) would have regulatory authority over those mapped areas [pursuant to Section 404 and 401 of the Clean Water Act respectively] and permits would be required from each of these resource agencies prior to grading the project site.

If you have any questions, please call (209) 235-0574.

S J C O G, Inc.

San Joaquin County Multi-Species Habitat Conservation & Open Space Plan

555 East Weber Avenue ● Stockton, CA 95202 ● (209) 235-0600 ● FAX (209) 235-0438

SJMSCP HOLD

TO: Local Jurisdiction: Community Development Department, Planning Department, Building Department, Engineering Department, Survey Department, Transportation Department, Other: _____

FROM: Laurel Boyd, SJCOG, Inc.

DO NOT AUTHORIZE SITE DISTURBANCE
DO NOT ISSUE A BUILDING PERMIT
DO NOT ISSUE _____ FOR THIS PROJECT

The landowner/developer for this site has requested coverage pursuant to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). In accordance with that agreement, the Applicant has agreed to:

1) SJMSCP Incidental Take Minimization Measures and mitigation requirement:

1. Incidental Take Minimization Measures (ITMMs) will be issued to the project and must be signed by the project applicant prior to any ground disturbance but no later than six (6) months from receipt of the ITMMs. If ITMMs are not signed within six months, the applicant must reapply for SJMSCP Coverage. Upon receipt of signed ITMMs from project applicant, SJCOG, Inc. staff will sign the ITMMs. This is the effective date of the ITMMs.
2. Under no circumstance shall ground disturbance occur without compliance and satisfaction of the ITMMs.
3. Upon issuance of fully executed ITMMs and prior to any ground disturbance, the project applicant must:
   a. Post a bond for payment of the applicable SJMSCP fee covering the entirety of the project acreage being covered (the bond should be valid for no longer than a 6 month period); or
   b. Pay the appropriate SJMSCP fee for the entirety of the project acreage being covered; or
   c. Dedicate land in-lieu of fees, either as conservation easements or fee title; or
   d. Purchase approved mitigation bank credits.
4. Within 6 months from the effective date of the ITMMs or issuance of a building permit, whichever occurs first, the project applicant must:
   a. Pay the appropriate SJMSCP for the entirety of the project acreage being covered; or
   b. Dedicate land in-lieu of fees, either as conservation easements or fee title; or
   c. Purchase approved mitigation bank credits.

   Failure to satisfy the obligations of the mitigation fee shall subject the bond to be called.

Project Title: Notice of Preparation of an EIR for the Schulte Road Warehouse Project

Assessor Parcel #s: 209-230-25, -26

Local Jurisdiction Contact: Scott Claar

The LOCAL JURISDICTION retains responsibility for ensuring that the appropriate Incidental Take Minimization Measures are properly implemented and monitored and that appropriate fees are paid in compliance with the SJMSCP.

SAN JOAQUIN COUNTY
Greatness grows here.

Environmental Health Department
Jasjit Kang, REHS, Director
Muniappa Naidu, REHS, Assistant Director
PROGRAM COORDINATORS
Jeff Carruesco, REHS, RDI
Willy Ng, REHS
Steven Shih, REHS
Elena Manzo, REHS
Natalia Subbotnikova, REHS

January 12, 2024

To: City Of Tracy Planning Division
Attention: Scott Claar, Senior Planner

From: Aldara Salinas; (209) 616-3019
Environmental Health Specialist

RE: **Notice of Preparation of an EIR - City of Tracy Schulte Road Warehouse Annexation, SU0015978; 16286 and 16310 W Schulte Rd., Tracy**

The following requirements have been identified as pertinent to this project. Other requirements may also apply. These requirements cannot be modified.

1. Written Confirmation is required from the Public Works Department that improvements have been constructed or financial arrangements have been made for any improvements for public sewer required by the agency. In addition, written confirmation from the Public Works Department that the agency has or will have the sewer capacity to serve the development is also required (San Joaquin County Development Title, Section 9-600.020).
2. The applicant shall provide written confirmation from the water providers that improvements have been constructed or financial arrangements have been made for any improvements required by the agency and that the agency has or will have the capacity to serve the proposed development. Said written confirmation shall be submitted prior to the issuance of a building permit (San Joaquin County Development Title, Section 9-602.010).
3. The existing wells and septic systems for the existing residential structures shall be destroyed under permit and inspection by the EHD (San Joaquin County Development Title, Section 9-605.010 & 9-601.020).
4. Any geotechnical drilling shall be conducted under permit and inspection by The Environmental Health Department (San Joaquin County Development Title, Section 9-601.010(b) and 9-601.020(i)).
5. Before any hazardous materials/waste can be stored or used onsite, the owner/operator must report the use or storage of these hazardous materials to the California Environmental Reporting System (CERS) at cers.calepa.ca.gov/ and comply with the laws and regulations for the programs listed below (based on quantity of hazardous material in some cases). The applicant may contact the Program Coordinator of the CUPA program, Elena Manzo (209) 953-7699, with any questions.
    a. Any amount but not limited to the following hazardous waste; hazardous material spills, used oil, used oil filters, used oil-contaminated absorbent/debris, waste antifreeze, used batteries or other universal waste, etc. – **Hazardous Waste Program** (Health &Safety Code (HSC) Sections 25404 & 25180 et sec.)
    b. Onsite treatment of hazardous waste – **Hazardous Waste Treatment Tiered Permitting Program** (HSC Sections 25404 & 25200 et sec. & California Code of Regulations (CCR), Title 22, Section 67450.1 et sec.)

c. Reportable quantities of hazardous materials-reportable quantities are 55 gallons or more of liquids, 500 pounds for solids, or 200 cubic feet for compressed gases, with some exceptions. Carbon dioxide is a regulated substance and is required to be reported as a hazardous material if storing 1,200 cubic feet (137 pounds) or more onsite in San Joaquin County – **Hazardous Materials Business Plan Program** (HSC Sections 25508 & 25500 et sec.)

d. Any amount of hazardous material stored in an Underground Storage Tank – **Underground Storage Tank Program** (HSC Sections 25286 & 25280 et sec.)

- **i.** If an underground storage tank (UST) system will be installed, a permit is required to be submitted to, and approved by, the San Joaquin County Environmental Health Department (EHD) before any UST installation work can begin.
- **ii.** Additionally, an EHD UST permit to operate is required once the approved UST system is installed.

e. Storage of at least 1,320 gallons of petroleum aboveground or any amount of petroleum stored below grade in a vault – **Aboveground Petroleum Storage Program** (HSC Sections 25270.6 & 25270 et sec.)

- **i. Spill Prevention, Countermeasures and Control (SPCC) Plan requirement**

f. Threshold quantities of regulated substances stored onsite - **California Accidental Release Prevention (CalARP) Program** (Title 19, Section 2735.4 & HSC Section 25531 et sec.)

- **i. Risk Management Plan requirement for covered processes**

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING

DATE: December 15, 2023

TO: State Clearinghouse
State Responsible Agencies
State Trustee Agencies
Other Public Agencies
Organizations and Interested Persons

SUBJECT: Notice of Preparation of an Environmental Impact Report and Scoping Meeting for the Schulte Road Warehouse Project SU0015978 (2675) SB

LEAD AGENCY: City of Tracy
Planning Division
333 Civic Center Plaza
Tracy, CA 95376

PROJECT PLANNER: Scott Claar, Senior Planner
Scott.Claar@cityoftracy.org
(209) 831-6429

PURPOSE OF NOTICE: This is to notify public agencies and the general public that the City of Tracy, as the Lead Agency, will prepare an Environmental Impact Report (EIR) for the Schulte Road Warehouse Project. The City of Tracy is interested in the input and/or comments of public agencies and the public as to the scope and content of the environmental information that is germane to the agencies' statutory responsibilities in connection with the proposed project. Responsible/trustee agencies will need to use the EIR prepared by the City of Tracy when considering applicable permits, or other approvals for the proposed project.

COMMENT PERIOD: Consistent with the time limits mandated by State law, your input, comments or responses must be received in writing and sent at the earliest possible date, but not later than 5:00 PM, January 16, 2024.

Please send your comments/input (including the name for a contact person in your agency) to: Attn: Scott Claar, Senior Planner, Development Services Department, City of Tracy, 333 Civic Center Plaza, Tracy, CA 95376; or by e-mail to Scott.Claar@cityoftracy.org.

SCOPING MEETING: On Tuesday, January 9, 2024, at 5:00 p.m., the City of Tracy will conduct a public scoping meeting to solicit input and comments from public agencies and the general public on the proposed project and scope of the EIR. This meeting will be held on-line via Microsoft Teams, and interested parties may join the Microsoft Teams scoping meeting to review the proposed project exhibits and submit on-line comments beginning at 5:00 PM. Representatives

from the City of Tracy and the EIR consultant team will be available via the MS Teams scoping meeting to address questions regarding the EIR process and scope. All interested persons may submit statements orally during the meeting by calling the teleconference line at (209) 425-4338, Conference ID 295 015 624 508 or online https://www.microsoft.com/microsoft-teams/join-a-meeting Meeting ID: 295 015 624 508 Passcode: VxSNjk. If you have any questions regarding the scoping meeting, contact Scott Claar, Senior Planner, at (209) 831-6429 or Scott.Claar@cityoftracy.org.

PROJECT LOCATION AND SETTING: The Schulte Road Warehouse project site (project site) is located at 16286 West Schulte Road in unincorporated San Joaquin County, California (see Figures 1 and 2). The project site is within the Tracy Sphere of Influence (SOI) 10-Year Planning Horizon and is immediately adjacent to the Tracy city limits to the north of the site. The project site is identified by Assessor Parcel Numbers (APNs) 209-230-250 and -260. Both parcels would be annexed to the City of Tracy as part of the project. The larger parcel (APN 209-230-250) (the "Development Area") is proposed for development as part of the project. The smaller parcel (APN 209-230-260), referred to as the Williams Communication Parcel, would not be developed as part of the proposed project.

The project site includes two distinct planning boundaries defined below. The following terms are used throughout this Initial Study to describe the planning boundaries within the project site:

- **Project Site** (or **Annexation Area**) – totals 21.92 acres and includes: (1) the proposed 20.92-acre Development Area (APN 209-230-250), and (2) the 1.00-acre Williams Communication Parcel along West Schulte Road (APN 209-230-260), which would not be developed as part of the proposed project.
- **Development Area** – includes a 20.92-acre parcel (APN 209-230-250) that is intended for the development of up to 217,466-square foot (sf) of warehouse and office uses.

The project site is bound by Hansen Road to the west, West Schulte Road to the north, the Delta Mendota Canal to the south, and a private driveway and vacant land on the east. Surrounding land uses include the Cal Fire Station 26 and vacant land to the west, vacant land previously used for agricultural uses to the east, two industrial warehouses to the north, and the Delta Mendota Canal and agricultural land to the south. It is noted that an industrial warehouse Project, the Costco Depot Annexation Project, is currently (as of June 2023) proposed on the adjacent parcel to the east of the Project site. The area north of the project site is part of the Cordes Ranch Specific Plan Area, which is being developed with industrial and commercial uses pursuant to the Cordes Ranch Specific Plan approved by the City in 2013.

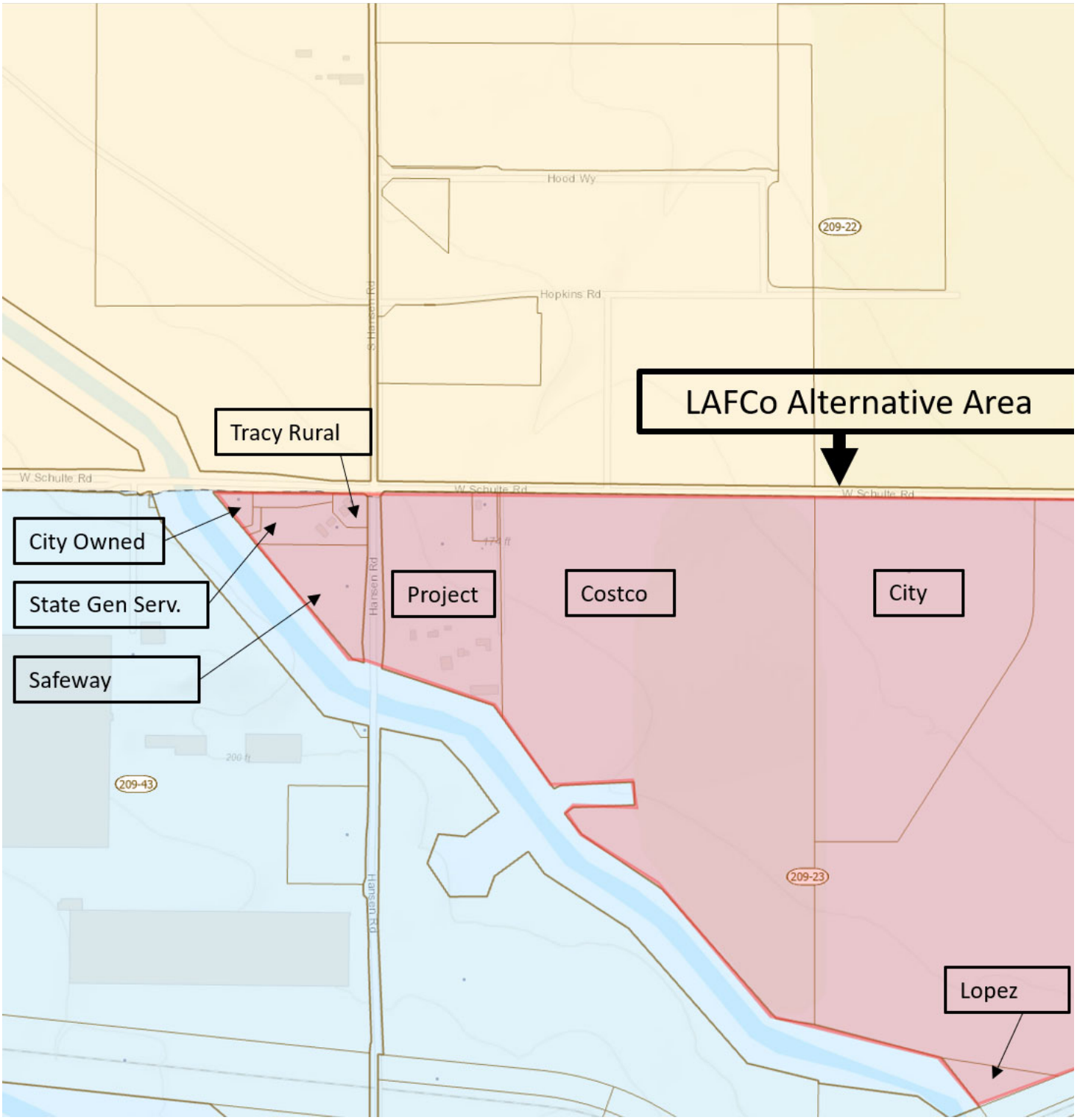
PROJECT DESCRIPTION: The proposed project would include demolition of the three single-family residences and six ancillary structures and redevelopment of the Development Area with a one-story, 217,466 square foot (sf) warehouse building and a surface parking lot (see Figure 4). The 217,466-sf warehouse would include 206,593 sf of warehouse uses and 10,873-sf of office space. The City's General Plan land use designation for the project site is Industrial. Specific uses allowed in the industrial category range from flex/office space to manufacturing to warehousing and distribution. Although the tenants of the proposed warehouse are unknown at this time, this

From: Hightower, Jeffrey [LAFCO] <jhightower@sjgov.org>
Sent: Tuesday, December 19, 2023 9:44 AM
To: Scott Claar <Scott.Claar@cityoftracy.org>
Cc: smcmurtry@denovoplanning.com
Subject: Schulte Road Warehouse Project Notice of Preparation

Caution: This is an external email. Please take care when clicking links or opening attachments.

Hi Scott,

LAFCo encourages planned, orderly, efficient patterns of urban development with definite and certainty of the boundaries of territory (Gover 56668). As such, a logical boundary that LAFCo encourages the City to consider an alternative Schulte Road Warehouse annexation bound triangular block to the west and the Costco and City owned property immediately to the east. The triangular block to the west is owned by Protection District, the State Department of General Services and Safeway. The Costco property is or has already been evaluated for annex alterative area includes 2.05 acres owned by Mr. Lopez on the southeast corner of the alternative area. The area would result in matching t on the north side of Schulte Road (please see map below), making a more definite and certain boundary along Schulte Road. Have a happy


LAFCo Alternative Area
Tracy Rural
City Owned
State Gen Serv.
Safeway
Project
Costco
City
Lopez
Hood Wy
Hopkins Rd
S Hansen Rd
W Schulte Rd
209-22
209-43
209-23
Hansen Rd

Yours Truly,
J.D. Hightower
Executive Officer
San Joaquin Local Agency Formation Commission
The Gateway County of California
44 N San Joaquin St, Suite 374
Stockton, CA 95202
(209)468-3198 (Office)
(209)605-5440 (Cell)

Balancing Community and Commerce

"The giver of every good and perfect gift has called upon us to mimic His giving, by grace, through faith, and this is not of ourselves."
— **St. Nicholas of Myra**

Elise Laws <elaws@denovoplanning.com> Wed, Jan 17, 2024 at 7:48 AM
To: Ben Ritchie <britchie@denovoplanning.com>

Hey Ben - Please see below. I'll call you to discuss this, as well as a question about Tracy Costco RDEIR meeting, in about an hour. Thanks!

--

Elise Laws (formerly Elise Carroll) (she/her) | Senior Planner

De Novo Planning Group | www.denovoplanning.com

elaws@denovoplanning.com **|** 916-235-0116

Northern California | 1020 Suncast Ln #106 **|** El Dorado Hills, CA 95762

Southern California | 180 East Main St #108 **|** Tustin, CA 92780

[Quoted text hidden]

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

January 16, 2024

Scott Claar
City of Tracy
Planning Division
333 Civic Center Plaza
Tracy, CA 95376

Project: Schulte Road Warehouse Project Initial Study & Notice of Preparation

District CEQA Reference No: 20231232

Dear Mr. Claar:

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Initial Study (IS) and Notice of Preparation (NOP) from the City of Tracy (City) for the proposed warehouse development project. Per the IS/NOP, the project consists of the development of a single-story, 217,466 square foot (sf) warehouse building and a surface parking lot (Project). The Project is located east of Hansen Road, south of West Schulte Road, north of the Delta Mendota Canal, and west of a vacant lot in Tracy, CA.

The District offers the following comments at this time regarding the Project:

1) Project Related Emissions

The District's initial review of the Project concludes that emissions resulting from construction and operation of the Project may exceed any of the following significance thresholds as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf. The District recommends that a more detailed preliminary review of the Project be conducted for the Project's construction and operational emissions.

1a) Construction Emissions

The District recommends, to reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment.

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

www.valleyair.org www.healthyairliving.com

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1b) Operational Emissions

Operational (ongoing) air emissions from mobile sources and stationary sources should be analyzed separately. For reference, the District's significance thresholds are identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf.

Recommended Mitigation Measure: At a minimum, project related impacts on air quality should be reduced to levels below the District's significance thresholds through incorporation of design elements such as the use of cleaner Heavy Heavy-Duty (HHD) trucks and vehicles, measures that reduce Vehicle Miles Traveled (VMTs), and measures that increase energy efficiency. More information on transportation mitigation measures can be found at: https://ww2.valleyair.org/media/ob0pweru/clean-air-measures.pdf

1c) Project Trip Length for HHD Truck Travel

The City's environmental review should adequately characterize and justify an appropriate trip length distance for off-site HHD truck travel to and from the Project site. Based on the following factors: 1) the Project consists of a warehouse/distribution center that is expected to generate a high volume of HHD truck trips, and 2) HHD trucks generally travel further distances for distribution. The District recommends the environmental review include a discussion characterizing an appropriate trip length distance for HHD truck travel, and reflect such appropriate distance supported by project-specific factors.

1d) Recommended Model for Quantifying Air Emissions

Project-related criteria pollutant emissions from construction and operational sources should be identified and quantified. Emissions analysis should be performed using the California Emission Estimator Model (CalEEMod), which uses the most recent CARB-approved version of relevant emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: www.caleemod.com.

2) Health Risk Screening/Assessment

The City should evaluate the risk associated with the Project for sensitive receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) in the area and mitigate any potentially significant risk to help limit exposure of sensitive receptors to emissions.

To determine potential health impacts on surrounding receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) a Prioritization and/or a Health Risk Assessment (HRA) should be performed for the Project. These health risk determinations should quantify and characterize potential Toxic Air Contaminants (TACs) identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) that pose a present or potential hazard to human health.

Health risk analyses should include all potential air emissions from the project, which include emissions from construction of the project, including multi-year construction, as well as ongoing operational activities of the project. Note, two common sources of TACs can be attributed to diesel exhaust emitted from heavy-duty off-road earth moving equipment during construction, and from ongoing operation of heavy-duty on-road trucks.

Prioritization (Screening Health Risk Assessment):
A "Prioritization" is the recommended method for a conservative screening-level health risk assessment. The Prioritization should be performed using the California Air Pollution Control Officers Association's (CAPCOA) methodology. Please contact the District for assistance with performing a Prioritization analysis.

The District recommends that a more refined analysis, in the form of an HRA, be performed for any project resulting in a Prioritization score of 10 or greater. This is because the prioritization results are a conservative health risk representation, while the detailed HRA provides a more accurate health risk evaluation.

Health Risk Assessment:
Prior to performing an HRA, it is strongly recommended that land use agencies/ project proponents develop and submit for District review a health risk modeling protocol that outlines the sources and methodologies that will be used to perform the HRA.

A development project would be considered to have a potentially significant health risk if the HRA demonstrates that the health impacts would exceed the District's established risk thresholds, which can be found here: https://ww2.valleyair.org/permitting/ceqa/.

A project with a significant health risk would trigger all feasible mitigation measures. The District strongly recommends that development projects that result in a significant health risk not be approved by the land use agency.

The District is available to review HRA protocols and analyses. For HRA submittals please provide the following information electronically to the District for review:

- HRA (AERMOD) modeling files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodologies.

For assistance, please contact the District's Technical Services Department by:

- E-Mailing inquiries to: hramodeler@valleyair.org
- Calling (559) 230-5900

Recommended Measure: Development projects resulting in TAC emissions should be located an adequate distance from residential areas and other sensitive receptors to prevent the creation of a significant health risk in accordance to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at https://ww2.arb.ca.gov/our-work/programs/resource-center/strategy-development/land-use-resources.

3) Ambient Air Quality Analysis

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. The District recommends an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

An AAQA uses air dispersion modeling to determine if emission increase from a project will cause or contribute to a violation of State or National Ambien Air Quality Standards. An acceptable analysis would include emissions from both project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis.

Specific information for assessing significance, including screening tools and modeling guidance, is available online at the District's website: https://ww2.valleyair.org/permitting/ceqa/.

4) Industrial/Warehouse Emission Reduction Strategies

The District recommends the City incorporate emission reduction strategies that can reduce potential harmful health impacts, such as those listed below:

- Require cleanest available heavy-duty trucks and off-road equipment (see comment 6)
- Require HHD truck routing patterns that limit exposure of residential communities and sensitive receptors to emissions (see comment 5)
- Require minimization of heavy-duty truck idling (see comment 7)
- Require solid screen buffering trees, solid decorative walls, and/or other natural ground landscaping techniques are implemented along the property line of adjacent sensitive receptors
- Orient loading docks away from sensitive receptors unless physically impossible
- Require loading docks a minimum of 300 feet away from the property line of sensitive receptor unless dock is exclusively used for electric trucks
- Incorporate signage and “pavement markings” to clearly identify on-site circulation patterns to minimize unnecessary on-site vehicle travel
- Require truck entries be located on streets of a higher commercial classification
- Require projects be designed to provide the necessary infrastructure to support use of zero-emissions on-road vehicles and off-road equipment (see comment 8)
- Require all building roofs are solar-ready
- Require all portions of roof tops that are not covered with solar panels are constructed to have light colored roofing material with a solar reflective index of greater than 78
- Ensure rooftop solar panels are installed and operated to supply 100% of the power needed to operate all non-refrigerated portions of the development project
- Require power sources at loading docks for all refrigerated trucks have “plugin” capacity, which will eliminate prolonged idling while loading and unloading goods
- Require the use of low volatile organic compounds (VOC) architectural and industrial maintenance coatings
- Designate an area during construction to charge electric powered construction vehicles and equipment, if temporary power is available
- Prohibit the use of non-emergency diesel-powered generators during construction
- Inform the project proponent of the incentive programs (e.g., Carl Moyer Program and Voucher Incentive Program) offered to reduce air emissions from the Project
- Ensure all landscaping be drought tolerant

5) Truck Routing

Truck routing involves the assessment of which roads Heavy Heavy-Duty (HHD) trucks take to and from their destination, and the emissions impact that the HHD trucks may have on residential communities and sensitive receptors.

The District recommends the City evaluate HHD truck routing patterns for the Project, with the aim of limiting exposure of residential communities and sensitive receptors to emissions. This evaluation would consider the current truck routes, the quantity and type of each truck (e.g., Medium Heavy-Duty, HHD, etc.), the destination and origin of each trip, traffic volume correlation with the time of day or the day of the week, overall Vehicle Miles Traveled (VMT), and associated exhaust emissions. The truck routing evaluation would also identify alternative truck routes and their impacts on VMT and air quality.

6) Cleanest Available Heavy-Duty Trucks

The San Joaquin Valley will not be able to attain stringent health-based federal air quality standards without significant reductions in emissions from HHD trucks, the single largest source of NOx emissions in the San Joaquin Valley. Accordingly, to meet federal air quality attainment standards, the District's ozone and particulate matter attainment plans rely on a significant and rapid transition of HHD fleets to zero or near-zero emissions technologies.

For development projects which typically generate a high volume of HHD truck traffic (e.g., "high-cube" warehouses), there are HHD trucks traveling to-and-from the project location at longer distribution trip length distances. Since the Project may exceed the District significance thresholds, the District recommends that the following measures be considered by the City to reduce Project-related operational emissions:

- *Recommended Measure*: Fleets associated with operational activities utilize the cleanest available HHD trucks, including zero and near-zero technologies.

- *Recommended Measure*: All on-site service equipment (cargo handling, yard hostlers, forklifts, pallet jacks, etc.) utilize zero-emissions technologies.

7) Reduce Idling of Heavy-Duty Trucks

The goal of this strategy is to limit the potential for localized PM2.5 and toxic air contaminant impacts associated with the idling of Heavy-Duty trucks. The diesel exhaust from idling has the potential to impose significant adverse health and environmental impacts.

Since the Project is expected to result in HHD truck trips, the District recommends the EIR include measures to ensure compliance of the state anti-idling regulation (13 CCR § 2485 and 13 CCR § 2480) and discuss the importance of limiting the amount of idling, especially near sensitive receptors. In addition, the District recommends the City consider the feasibility of implementing a more stringent 3-minute idling restriction and requiring appropriate signage and enforcement of idling restrictions.

8) Electric On-Site Off-Road and On-Road Equipment

Since the development project may include Heavy Industrial and Light Industrial uses, the Project may have the potential to result in increased use of off-road equipment (e.g., forklifts) and on-road equipment (e.g., mobile yard trucks with the ability to move materials). The District recommends that the EIR include requirements for project proponents to utilize electric or zero emission off-road and on-road equipment.

9) Clean Lawn and Garden Equipment in the Community

Since the Project consists of commercial development, gas-powered commercial lawn and garden equipment have the potential to result in an increase of NOx and PM2.5 emissions. Utilizing electric lawn care equipment can provide residents with immediate economic, environmental, and health benefits. The District recommends the Project proponent consider the District's Clean Green Yard Machines (CGYM) program which provides incentive funding for replacement of existing gas powered lawn and garden equipment. More information on the District CGYM program and funding can be found at: https://ww2.valleyair.org/grants/clean-green-yard-machines-residential/
and https://ww2.valleyair.org/grants/zero-emission-landscaping-equipment-voucher-program/.

10) On-Site Solar Deployment

It is the policy of the State of California that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. While various emission control techniques and programs exist to reduce air quality emissions from mobile and stationary sources, the production of solar energy is contributing to improving air quality and public health. The District suggests that the City consider incorporating solar power systems as an emission reduction strategy for the Project.

11) Electric Infrastructure

The District recommends that the City require all nonresidential buildings be designed to provide electric infrastructure to support the use of on-road zero emissions vehicles, such as HHD trucks associated with a warehouse.

To support and accelerate the installation of electric vehicle charging equipment and development of required infrastructure, the District offers incentives to public agencies, businesses, and property owners of multi-unit dwellings to install electric charging infrastructure (Level 2 and 3 chargers). The purpose of the District's Charge Up! Incentive program is to promote clean air alternative-fuel technologies and the use of low or zero-emission vehicles.
The District recommends that the City and project proponents install electric vehicle chargers at project sites, and at strategic locations.

Please visit www.valleyair.org/grants/chargeup.htm for more information.

12) District Rules and Regulations

The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), and several other rules pertaining to District permitting requirements and processes.

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: www.valleyair.org/rules/1ruleslist.htm. To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (209) 557-6446.

12a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT).

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits. Prior to construction, the Project proponent should submit to the

District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (209) 557-6446.

12b) District Rule 9510 - Indirect Source Review (ISR)

The Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 100,000 sf of heavy industrial development space.

The purpose of District Rule 9510 is to reduce the growth in both NOx and PM emissions associated with development and transportation projects from mobile and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The ISR Rule requires developers to mitigate their NOx and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions.

Per Section 5.0 of the ISR Rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As of the date of this letter, the District has not received an AIA application for this Project. Please immediately submit an AIA application to the District to comply with District Rule 9510 so that proper mitigation and clean air design under ISR can be incorporated into the Project's design.

Information about how to comply with District Rule 9510 can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview

The AIA application form can be found online at: https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview/forms-and-applications/

12c) District Rule 9410 (Employer Based Trip Reduction)

The Project may be subject to District Rule 9410 (Employer Based Trip Reduction) if the project would result in employment of 100 or more "eligible" employees. District Rule 9410 requires employers with 100 or more "eligible" employees at a worksite to establish an Employer Trip Reduction Implementation Plan (eTRIP) that encourages employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work commutes. Under an eTRIP plan, employers have the flexibility to select the options that work best for their worksites and their employees.

Information about District Rule 9410 can be found online at: https://ww2.valleyair.org/compliance/rule-9410-employer-based-trip-reduction/.

For additional information, you can contact the District by phone at 559-230-6000 or by e-mail at etrip@valleyair.org

12d) District Rule 4002 (National Emissions Standards for Hazardous Air Pollutants)

The Project will be subject to District Rule 4002 since the Project will include demolition and removal of existing structures. To protect the public from uncontrolled emissions of asbestos, this rule requires a thorough inspection for asbestos to be conducted before any regulated facility is demolished or renovated. Any asbestos present must be handled in accordance with established work practice standards and disposal requirements.

Information on how to comply with District Rule 4002 can be found online at: https://ww2.valleyair.org/compliance/demolition-renovation/.

12e) District Rule 4601 (Architectural Coatings)

The Project will be subject to District Rule 4601 since it is expected to utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at: https://ww2.valleyair.org/media/tkgjeusd/rule-4601.pdf

12f) District Regulation VIII (Fugitive PM10 Prohibitions)

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities.*

Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5-acres or more, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials, the project proponent shall submit to the

District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950.

The application for both the Construction Notification and Dust Control Plan can be found online at: https://ww2.valleyair.org/media/fm3jrbsq/dcp-form.docx

Information about District Regulation VIII can be found online at: https://ww2.valleyair.org/dustcontrol

12g) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

13) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent.

If you have any questions or require further information, please contact Jacob Torrez by e-mail at Jacob.torrez@valleyair.org or by phone at (559) 230-6558.

Sincerely,

Brian Clements
Director of Permit Services

For: Mark Montelongo
Program Manager

January 11, 2024

Via E-Mail

Scott Claar, Senior Planner
Planning Division
333 Civic Center Plaza
Tracy, CA 95376
E-mail: Scott.Claar@cityoftracy.org

Re: Notice of Preparation of an Environmental Impact Report - Comments

Dear Mr. Claar:

The San Luis & Delta-Mendota Water Authority (SLDMWA) appreciates the opportunity to comment in response to the City of Tracy's Notice of Preparation of an Environmental Impact Report and Notice of Scoping Meeting for the Schulte Road Warehouse Project. The Schulte Road Warehouse Project (Project) proposes development that encroaches upon and/or is adjacent to the Delta-Mendota Canal (DMC) and its right-of-way (ROW). The DMC is an integral part of the federal Central Valley Project, conveying water for agricultural, municipal, industrial, and environmental uses. The continued safe and reliable operation of the DMC is critical to the communities and ecosystems that it serves.

The DMC and the DMC ROW are owned by the U.S Bureau of Reclamation (Reclamation). SLDMWA operates and maintains (O&M) the DMC under a transfer agreement with Reclamation. Reclamation and SLDMWA work together to ensure that any infrastructure improvements and/or development activities on or near the DMC ROW will not have a negative impact on the DMC or on SLDMWA's ability to operate and maintain the DMC.

15990 KELSO ROAD
BYRON, CA
94514
209 832-6200
209 833-1034 FAX

1. Project Planning and Design Must be Consistent with Reclamation's Guidelines

Development and construction that encroaches upon and/or is adjacent to the DMC must be consistent with Reclamation's Engineering and O&M Guidelines for Crossings, April 2008 (Reclamation's Guidelines).[1] Applicants requesting to encroach

[1] Reclamation Guidelines available at https://www.usbr.gov/gp/mtao/canal_crossing_guidance.pdf.

upon Reclamation's land, such as the DMC ROW, must obtain a written land use authorization from Reclamation (Reclamation's Guidelines, Section 2.0; 43 C.F.R. § 429). It has been SLDMWA's experience that the most efficient way for applicants to ensure consistency with Reclamation's Guidelines is to proactively involve SLDMWA and Reclamation during a project's design and planning phase and for approving entities to require SLDMWA and/or Reclamation's approval as a condition of their approval.

Below is a non-inclusive list of requirements from Reclamation's Guidelines typically encountered by applicants during the plan review process that the developer must consider during planning and design activities and that the approving entities must require as a condition of their approval. Applicable sections from Reclamation's Guidelines are noted in parenthesis.

- The applicant shall not utilize the DMC ROW in any way without express approval by a land use agreement through Reclamation (Section 2.0), or temporary access permit from SLDMWA, where applicable (Section 3.2.6).

- All storm drainage shall be conveyed away from the DMC ROW (Sections 3.2.12, 3.2.13, and 4.4).

- Full compliance with NEPA is required for any improvements occurring within the DMC ROW.

- Fencing around the ROW boundaries shall be designed to protect the DMC from trespassers and vandalism. Proper fencing must be installed 1 foot outside of Reclamation's ROW and maintained by the new development (Section 4.5.3 and 4.5.8).

- At all roadway intersections, gates shall be designed and installed to prevent unauthorized access to DMC roadways (Section 4.1.10).

- Bridge crossings with public walkways must be designed to prevent unwanted debris from being discharged into the canal (Section 3.2.13).

- The modification of existing bridges, or the construction of new bridges shall take the existing O&M roads into consideration. American Association of State Highway and Transportation Officials (AASHTO) criteria for sight distances at the intersection of the O&M roads and roadways at new bridges shall be met to allow O&M vehicles to cross them safely (Section 4.1.4). Where existing or new proposed bridge crossings exceed 2 lanes of travel in either direction, additional

requirements may be necessary to provide safe crossings. The proposed crossing modifications shall be reviewed and approved by Reclamation and SLDMWA.

- All new crossings shall be full span. No supports are allowed within the canal prism, and power poles shall be located outside of the ROW (Sections 4.6.2-2, 4.6.3.2).

- Subsidence is a wide spread issue on the DMC, and all new construction shall take subsidence impacts into consideration for the design life of the structure (Section 4.1.3). Consultation with SLDMWA and Reclamation will be required to discuss subsidence rates and future predicted elevations.

- All utility crossings of the DMC ROW shall be reviewed and approved by SLDMWA and Reclamation (Section 4.6).

- Existing drain inlets are to be plugged to the satisfaction of SLDMWA and Reclamation (Section 4.4.12). Refer to SLDMWA drawing No. 2202033 '*DRAIN INLET ABANDONMENT STANDARD PLAN*'. Note: All work required within the canal prism will be completed by SLDMWA staff at the applicant's expense. All other abandonment requirements will be responsibility of the applicant. Applicable fees shall apply.

- Existing turnouts are to be either plugged, or protected in place to the satisfaction of SLDMWA, Reclamation, and the appropriate water district (Section 4.4.12). Refer to SLDMWA drawing No. 2202034 '*TURNOUT ABANDONMENT STANDARD PLAN*'. Applicant will be required to work directly with the appropriate water district for all activities related to the turnouts. Note: All work required within the canal prism will be completed by SLDMWA staff at the applicant's expense. All other abandonment requirements will be the responsibility of the applicant. Applicable fee shall apply.

2. Impacts of the Project on the DMC That Affect the Environment Must Be Analyzed in the Draft EIR

The Project's potential impact on the DMC may affect the environment in a way that must be considered in the Draft EIR. For example, Project construction may lead to an increase in erosion and, thus, sediment discharge into the DMC, and the existence of the Project in the long-term may lead to an increase in trash being discarded into the DMC. Both of these examples could negatively affect the water quality of the water

that is conveyed through the DMC for municipal, agricultural, and environmental uses. Such impacts must be analyzed and properly accounted for in the Draft EIR.

Lastly, please include the Reclamation Lands Division in Fresno on all future notices. Notices should be addressed to the following:

> Bureau of Reclamation; Lands Division
> Attn: Michael Inthavong
> 1243 N Street
> Fresno, CA 93721-1813

Conclusion

Thank you for this opportunity to submit these comments. SLDMWA looks forward to working with the City of Tracy to ensure that the Project is consistent with Reclamation's Guidelines and to reviewing the Draft EIR.

Any questions for SLDMWA can be sent to the Engineering Department at 15990 Kelso Rd, Byron, CA 94514. I can be reached for questions at (209) 832-6221 or through email at jaime.mcneil@sldmwa.org.

Sincerely,

Jaime McNeil, P.E.
Engineering Manager

APPENDIX B

CalEEMod Outputs

Tracy Schulte - Proposed Project (Warehouse)_7.30.2024 Detailed Report

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1.1. Basic Project Information

Data Field	Value
Project Name	Tracy Schulte - Proposed Project (Warehouse)_7.30.2024
Construction Start Date	6/1/2025
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	6.60
Location	37.72031078643626, -121.51200929384544
County	San Joaquin
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2107
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.26

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	207	1000sqft	4.74	206,593	0.00	0.00	—	—

General Office Building	10.9	1000sqft	0.25	10,873	0.00	0.00	—	—
Other Asphalt Surfaces	15.9	Acre	15.9	15.9	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-9	Use Dust Suppressants
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	60.3	60.2	31.7	31.1	0.06	1.37	19.8	21.2	1.26	10.1	11.4	—	6,784	6,784	0.28	0.20	5.88	6,810
Mit.	60.3	60.2	31.7	31.1	0.06	1.37	7.81	9.18	1.26	3.97	5.23	—	6,784	6,784	0.28	0.20	5.88	6,810
% Reduced	—	—	—	—	—	—	61%	57%	—	61%	54%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	60.3	60.2	12.1	17.2	0.03	0.45	1.03	1.48	0.41	0.25	0.66	—	4,162	4,162	0.14	0.20	0.15	4,225
Mit.	60.3	60.2	12.1	17.2	0.03	0.45	1.03	1.48	0.41	0.25	0.66	—	4,162	4,162	0.14	0.20	0.15	4,225
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.57	3.55	8.12	12.1	0.02	0.31	1.76	2.07	0.29	0.70	0.99	—	2,961	2,961	0.10	0.14	1.62	3,008
Mit.	3.57	3.55	8.12	12.1	0.02	0.31	0.89	1.20	0.29	0.32	0.61	—	2,961	2,961	0.10	0.14	1.62	3,008
% Reduced	—	—	—	—	—	—	49%	42%	—	54%	39%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.65	0.65	1.48	2.20	< 0.005	0.06	0.32	0.38	0.05	0.13	0.18	—	490	490	0.02	0.02	0.27	498
Mit.	0.65	0.65	1.48	2.20	< 0.005	0.06	0.16	0.22	0.05	0.06	0.11	—	490	490	0.02	0.02	0.27	498
% Reduced	—	—	—	—	—	—	49%	42%	—	54%	39%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.02	3.38	31.7	31.1	0.06	1.37	19.8	21.2	1.26	10.1	11.4	—	6,784	6,784	0.28	0.20	5.88	6,810
2026	1.72	1.46	11.3	17.7	0.03	0.39	1.03	1.42	0.36	0.25	0.62	—	4,206	4,206	0.13	0.20	5.24	4,273
2027	60.3	60.2	0.87	1.93	< 0.005	0.02	0.15	0.17	0.02	0.04	0.05	—	294	294	0.01	0.01	0.50	297
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.78	1.50	12.1	17.2	0.03	0.45	1.03	1.48	0.41	0.25	0.66	—	4,162	4,162	0.14	0.20	0.15	4,225
2026	1.69	1.43	11.4	16.8	0.03	0.39	1.03	1.42	0.36	0.25	0.62	—	4,128	4,128	0.14	0.20	0.14	4,191
2027	60.3	60.2	10.9	16.5	0.03	0.35	1.03	1.38	0.32	0.25	0.58	—	4,096	4,096	0.14	0.20	0.12	4,159
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.06	0.90	7.82	8.84	0.02	0.31	1.76	2.07	0.29	0.70	0.99	—	2,019	2,019	0.07	0.06	0.69	2,040

2026	1.21	1.02	8.12	12.1	0.02	0.28	0.73	1.01	0.26	0.18	0.44	—	2,961	2,961	0.10	0.14	1.62	3,008
2027	3.57	3.55	1.15	1.78	< 0.005	0.04	0.08	0.12	0.04	0.02	0.06	—	379	379	0.01	0.01	0.16	384
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.19	0.16	1.43	1.61	< 0.005	0.06	0.32	0.38	0.05	0.13	0.18	—	334	334	0.01	0.01	0.11	338
2026	0.22	0.19	1.48	2.20	< 0.005	0.05	0.13	0.18	0.05	0.03	0.08	—	490	490	0.02	0.02	0.27	498
2027	0.65	0.65	0.21	0.32	< 0.005	0.01	0.02	0.02	0.01	< 0.005	0.01	—	62.7	62.7	< 0.005	< 0.005	0.03	63.5

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.02	3.38	31.7	31.1	0.06	1.37	7.81	9.18	1.26	3.97	5.23	—	6,784	6,784	0.28	0.20	5.88	6,810
2026	1.72	1.46	11.3	17.7	0.03	0.39	1.03	1.42	0.36	0.25	0.62	—	4,206	4,206	0.13	0.20	5.24	4,273
2027	60.3	60.2	0.87	1.93	< 0.005	0.02	0.15	0.17	0.02	0.04	0.05	—	294	294	0.01	0.01	0.50	297
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.78	1.50	12.1	17.2	0.03	0.45	1.03	1.48	0.41	0.25	0.66	—	4,162	4,162	0.14	0.20	0.15	4,225
2026	1.69	1.43	11.4	16.8	0.03	0.39	1.03	1.42	0.36	0.25	0.62	—	4,128	4,128	0.14	0.20	0.14	4,191
2027	60.3	60.2	10.9	16.5	0.03	0.35	1.03	1.38	0.32	0.25	0.58	—	4,096	4,096	0.14	0.20	0.12	4,159
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.06	0.90	7.82	8.84	0.02	0.31	0.89	1.20	0.29	0.32	0.61	—	2,019	2,019	0.07	0.06	0.69	2,040
2026	1.21	1.02	8.12	12.1	0.02	0.28	0.73	1.01	0.26	0.18	0.44	—	2,961	2,961	0.10	0.14	1.62	3,008
2027	3.57	3.55	1.15	1.78	< 0.005	0.04	0.08	0.12	0.04	0.02	0.06	—	379	379	0.01	0.01	0.16	384
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.19	0.16	1.43	1.61	< 0.005	0.06	0.16	0.22	0.05	0.06	0.11	—	334	334	0.01	0.01	0.11	338
2026	0.22	0.19	1.48	2.20	< 0.005	0.05	0.13	0.18	0.05	0.03	0.08	—	490	490	0.02	0.02	0.27	498

2027	0.65	0.65	0.21	0.32	< 0.005	0.01	0.02	0.02	0.01	< 0.005	0.01	—	62.7	62.7	< 0.005	< 0.005	0.03	63.5

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.62	7.29	8.88	20.2	0.08	0.17	4.20	4.37	0.16	1.09	1.25	205	10,547	10,752	21.2	1.32	5,527	17,204
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.88	5.69	9.41	8.88	0.08	0.16	4.20	4.35	0.15	1.09	1.24	205	10,282	10,487	21.2	1.33	5,506	16,920
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.72	6.46	9.23	13.7	0.08	0.16	4.18	4.34	0.16	1.08	1.24	205	10,352	10,558	21.2	1.33	5,515	16,998
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.23	1.18	1.68	2.51	0.02	0.03	0.76	0.79	0.03	0.20	0.23	34.0	1,714	1,748	3.51	0.22	913	2,814

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.86	0.68	8.41	10.4	0.08	0.12	4.20	4.32	0.12	1.09	1.21	—	8,617	8,617	0.17	1.06	21.7	8,959
Area	6.72	6.59	0.08	9.46	< 0.005	0.02	—	0.02	0.01	—	0.01	—	38.9	38.9	< 0.005	< 0.005	—	39.0
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,800	1,800	0.26	0.03	—	1,815
Water	—	—	—	—	—	—	—	—	—	—	—	95.3	90.6	186	9.78	0.23	—	500

Waste	—	—	—	—	—	—	—	—	—	—	—	110	0.00	110	11.0	0.00	—	385
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
Total	7.62	7.29	8.88	20.2	0.08	0.17	4.20	4.37	0.16	1.09	1.25	205	10,547	10,752	21.2	1.32	5,527	17,204
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.80	0.63	9.02	8.55	0.08	0.13	4.20	4.32	0.12	1.09	1.21	—	8,391	8,391	0.17	1.07	0.56	8,714
Area	5.04	5.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,800	1,800	0.26	0.03	—	1,815
Water	—	—	—	—	—	—	—	—	—	—	—	95.3	90.6	186	9.78	0.23	—	500
Waste	—	—	—	—	—	—	—	—	—	—	—	110	0.00	110	11.0	0.00	—	385
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
Total	5.88	5.69	9.41	8.88	0.08	0.16	4.20	4.35	0.15	1.09	1.24	205	10,282	10,487	21.2	1.33	5,506	16,920
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.81	0.64	8.80	8.74	0.08	0.13	4.18	4.31	0.12	1.08	1.20	—	8,442	8,442	0.17	1.06	9.35	8,773
Area	5.87	5.80	0.04	4.66	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,800	1,800	0.26	0.03	—	1,815
Water	—	—	—	—	—	—	—	—	—	—	—	95.3	90.6	186	9.78	0.23	—	500
Waste	—	—	—	—	—	—	—	—	—	—	—	110	0.00	110	11.0	0.00	—	385
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
Total	6.72	6.46	9.23	13.7	0.08	0.16	4.18	4.34	0.16	1.08	1.24	205	10,352	10,558	21.2	1.33	5,515	16,998
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.15	0.12	1.61	1.60	0.01	0.02	0.76	0.79	0.02	0.20	0.22	—	1,398	1,398	0.03	0.18	1.55	1,452
Area	1.07	1.06	0.01	0.85	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.18	3.18	< 0.005	< 0.005	—	3.19
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	298	298	0.04	< 0.005	—	300
Water	—	—	—	—	—	—	—	—	—	—	—	15.8	15.0	30.8	1.62	0.04	—	82.8
Waste	—	—	—	—	—	—	—	—	—	—	—	18.2	0.00	18.2	1.82	0.00	—	63.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	912	912

Total	1.23	1.18	1.68	2.51	0.02	0.03	0.76	0.79	0.03	0.20	0.23	34.0	1,714	1,748	3.51	0.22	913	2,814

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.86	0.68	8.41	10.4	0.08	0.12	4.20	4.32	0.12	1.09	1.21	—	8,617	8,617	0.17	1.06	21.7	8,959
Area	6.72	6.59	0.08	9.46	< 0.005	0.02	—	0.02	0.01	—	0.01	—	38.9	38.9	< 0.005	< 0.005	—	39.0
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,800	1,800	0.26	0.03	—	1,815
Water	—	—	—	—	—	—	—	—	—	—	—	95.3	90.6	186	9.78	0.23	—	500
Waste	—	—	—	—	—	—	—	—	—	—	—	110	0.00	110	11.0	0.00	—	385
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
Total	7.62	7.29	8.88	20.2	0.08	0.17	4.20	4.37	0.16	1.09	1.25	205	10,547	10,752	21.2	1.32	5,527	17,204
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.80	0.63	9.02	8.55	0.08	0.13	4.20	4.32	0.12	1.09	1.21	—	8,391	8,391	0.17	1.07	0.56	8,714
Area	5.04	5.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,800	1,800	0.26	0.03	—	1,815
Water	—	—	—	—	—	—	—	—	—	—	—	95.3	90.6	186	9.78	0.23	—	500
Waste	—	—	—	—	—	—	—	—	—	—	—	110	0.00	110	11.0	0.00	—	385
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
Total	5.88	5.69	9.41	8.88	0.08	0.16	4.20	4.35	0.15	1.09	1.24	205	10,282	10,487	21.2	1.33	5,506	16,920
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.81	0.64	8.80	8.74	0.08	0.13	4.18	4.31	0.12	1.08	1.20	—	8,442	8,442	0.17	1.06	9.35	8,773
Area	5.87	5.80	0.04	4.66	< 0.005	0.01	—	0.01	0.01	—	0.01	—	19.2	19.2	< 0.005	< 0.005	—	19.3
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,800	1,800	0.26	0.03	—	1,815

Water	—	—	—	—	—	—	—	—	—	—	—	95.3	90.6	186	9.78	0.23	—	500
Waste	—	—	—	—	—	—	—	—	—	—	—	110	0.00	110	11.0	0.00	—	385
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
Total	6.72	6.46	9.23	13.7	0.08	0.16	4.18	4.34	0.16	1.08	1.24	205	10,352	10,558	21.2	1.33	5,515	16,998
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.15	0.12	1.61	1.60	0.01	0.02	0.76	0.79	0.02	0.20	0.22	—	1,398	1,398	0.03	0.18	1.55	1,452
Area	1.07	1.06	0.01	0.85	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.18	3.18	< 0.005	< 0.005	—	3.19
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	298	298	0.04	< 0.005	—	300
Water	—	—	—	—	—	—	—	—	—	—	—	15.8	15.0	30.8	1.62	0.04	—	82.8
Waste	—	—	—	—	—	—	—	—	—	—	—	18.2	0.00	18.2	1.82	0.00	—	63.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	912	912
Total	1.23	1.18	1.68	2.51	0.02	0.03	0.76	0.79	0.03	0.20	0.23	34.0	1,714	1,748	3.51	0.22	913	2,814

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.01	1.01	—	0.15	0.15	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.22	1.09	< 0.005	0.05	—	0.05	0.05	—	0.05	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.04	0.78	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	139	139	0.01	0.01	0.52	141
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	0.02	0.96	0.23	0.01	0.02	0.21	0.23	0.02	0.06	0.07	—	805	805	0.02	0.12	1.95	845
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.04	7.04	< 0.005	< 0.005	0.01	7.15

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.1	44.1	< 0.005	0.01	0.05	46.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.17	1.17	< 0.005	< 0.005	< 0.005	1.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.31	7.31	< 0.005	< 0.005	0.01	7.66

3.2. Demolition (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.01	1.01	—	0.15	0.15	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.22	1.09	< 0.005	0.05	—	0.05	0.05	—	0.05	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.04	0.78	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	139	139	0.01	0.01	0.52	141
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	0.02	0.96	0.23	0.01	0.02	0.21	0.23	0.02	0.06	0.07	—	805	805	0.02	0.12	1.95	845
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.04	7.04	< 0.005	< 0.005	0.01	7.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	44.1	44.1	< 0.005	0.01	0.05	46.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.17	1.17	< 0.005	< 0.005	< 0.005	1.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.31	7.31	< 0.005	< 0.005	0.01	7.66

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.87	0.83	< 0.005	0.04	—	0.04	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.54	0.54	—	0.28	0.28	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1

Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.91	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	162	162	0.01	0.01	0.60	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.11	4.11	< 0.005	< 0.005	0.01	4.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	0.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.87	0.83	< 0.005	0.04	—	0.04	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.91	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	162	162	0.01	0.01	0.60	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.11	4.11	< 0.005	< 0.005	0.01	4.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	0.69
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.31	2.85	2.71	0.01	0.12	—	0.12	0.11	—	0.11	—	633	633	0.03	0.01	—	635
Dust From Material Movement	—	—	—	—	—	—	0.88	0.88	—	0.35	0.35	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.50	< 0.005	0.02	—	0.02	0.02	—	0.02	—	105	105	< 0.005	< 0.005	—	105
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.04	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	185	185	0.01	0.01	0.69	188
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.4	16.4	< 0.005	< 0.005	0.03	16.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.72	2.72	< 0.005	< 0.005	< 0.005	2.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622

Dust From Material Movement	—	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.31	2.85	2.71	0.01	0.12	—	0.12	0.11	—	0.11	—	633	633	0.03	0.01	—	635
Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.14	0.14	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.50	< 0.005	0.02	—	0.02	0.02	—	0.02	—	105	105	< 0.005	< 0.005	—	105
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.04	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	185	185	0.01	0.01	0.69	188

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.4	16.4	< 0.005	< 0.005	0.03	16.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.72	2.72	< 0.005	< 0.005	< 0.005	2.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.26	2.45	3.06	0.01	0.10	—	0.10	0.09	—	0.09	—	563	563	0.02	< 0.005	—	565
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.45	0.56	< 0.005	0.02	—	0.02	0.02	—	0.02	—	93.2	93.2	< 0.005	< 0.005	—	93.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.38	0.25	4.71	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	835	835	0.04	0.03	3.11	848
Vendor	0.05	0.03	1.25	0.43	0.01	0.01	0.27	0.29	0.01	0.08	0.09	—	1,009	1,009	0.02	0.15	2.77	1,057
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.34	3.74	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	754	754	0.02	0.03	0.08	764
Vendor	0.05	0.03	1.34	0.44	0.01	0.01	0.27	0.29	0.01	0.08	0.09	—	1,010	1,010	0.02	0.15	0.07	1,055
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.09	0.08	0.07	0.90	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	182	182	< 0.005	0.01	0.31	184
Vendor	0.01	0.01	0.31	0.10	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	237	237	< 0.005	0.04	0.28	248
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.1	30.1	< 0.005	< 0.005	0.05	30.5
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.3	39.3	< 0.005	0.01	0.05	41.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.32	0.26	2.45	3.06	0.01	0.10	—	0.10	0.09	—	0.09	—	563	563	0.02	< 0.005	—	565
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.45	0.56	< 0.005	0.02	—	0.02	0.02	—	0.02	—	93.2	93.2	< 0.005	< 0.005	—	93.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.41	0.38	0.25	4.71	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	835	835	0.04	0.03	3.11	848
Vendor	0.05	0.03	1.25	0.43	0.01	0.01	0.27	0.29	0.01	0.08	0.09	—	1,009	1,009	0.02	0.15	2.77	1,057
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.34	3.74	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	754	754	0.02	0.03	0.08	764
Vendor	0.05	0.03	1.34	0.44	0.01	0.01	0.27	0.29	0.01	0.08	0.09	—	1,010	1,010	0.02	0.15	0.07	1,055
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.90	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	182	182	< 0.005	0.01	0.31	184
Vendor	0.01	0.01	0.31	0.10	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	237	237	< 0.005	0.04	0.28	248
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	30.1	30.1	< 0.005	< 0.005	0.05	30.5
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.3	39.3	< 0.005	0.01	0.05	41.0

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.77	7.04	9.26	0.02	0.27	—	0.27	0.25	—	0.25	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.17	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.23	4.35	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	817	817	0.02	0.03	2.80	829
Vendor	0.05	0.03	1.20	0.40	0.01	0.01	0.27	0.29	0.01	0.08	0.09	—	991	991	0.02	0.15	2.43	1,038
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.33	0.29	3.44	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	739	739	0.02	0.03	0.07	749
Vendor	0.05	0.03	1.28	0.42	0.01	0.01	0.27	0.29	0.01	0.08	0.09	—	992	992	0.02	0.15	0.06	1,037
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.23	0.18	2.52	0.00	0.00	0.54	0.54	0.00	0.13	0.13	—	541	541	0.01	0.02	0.87	549
Vendor	0.04	0.02	0.89	0.29	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	708	708	0.01	0.11	0.75	741
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.46	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	89.6	89.6	< 0.005	< 0.005	0.14	90.9
Vendor	0.01	< 0.005	0.16	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	117	117	< 0.005	0.02	0.12	123
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.77	7.04	9.26	0.02	0.27	—	0.27	0.25	—	0.25	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.23	4.35	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	817	817	0.02	0.03	2.80	829
Vendor	0.05	0.03	1.20	0.40	0.01	0.01	0.27	0.29	0.01	0.08	0.09	—	991	991	0.02	0.15	2.43	1,038
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.33	0.29	3.44	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	739	739	0.02	0.03	0.07	749
Vendor	0.05	0.03	1.28	0.42	0.01	0.01	0.27	0.29	0.01	0.08	0.09	—	992	992	0.02	0.15	0.06	1,037
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.23	0.18	2.52	0.00	0.00	0.54	0.54	0.00	0.13	0.13	—	541	541	0.01	0.02	0.87	549
Vendor	0.04	0.02	0.89	0.29	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	708	708	0.01	0.11	0.75	741
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.03	0.46	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	89.6	89.6	< 0.005	< 0.005	0.14	90.9
Vendor	0.01	< 0.005	0.16	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	117	117	< 0.005	0.02	0.12	123
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.62	0.86	< 0.005	0.02	—	0.02	0.02	—	0.02	—	159	159	0.01	< 0.005	—	160
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.4	26.4	< 0.005	< 0.005	—	26.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.31	0.26	3.18	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	727	727	0.02	0.03	0.07	737
Vendor	0.05	0.03	1.22	0.40	0.01	0.01	0.27	0.29	0.01	0.08	0.09	—	971	971	0.02	0.15	0.06	1,016
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	49.6	49.6	< 0.005	< 0.005	0.07	50.3
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	64.6	64.6	< 0.005	0.01	0.06	67.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.21	8.21	< 0.005	< 0.005	0.01	8.33
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.7	10.7	< 0.005	< 0.005	0.01	11.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.62	0.86	< 0.005	0.02	—	0.02	0.02	—	0.02	—	159	159	0.01	< 0.005	—	160
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.01	0.01	0.11	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.4	26.4	< 0.005	< 0.005	—	26.5
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.32	0.31	0.26	3.18	0.00	0.00	0.76	0.76	0.00	0.18	0.18	—	727	727	0.02	0.03	0.07	737
Vendor	0.05	0.03	1.22	0.40	0.01	0.01	0.27	0.29	0.01	0.08	0.09	—	971	971	0.02	0.15	0.06	1,016
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.22	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	49.6	49.6	< 0.005	< 0.005	0.07	50.3
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	64.6	64.6	< 0.005	0.01	0.06	67.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.21	8.21	< 0.005	< 0.005	0.01	8.33
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.7	10.7	< 0.005	< 0.005	0.01	11.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	2.09	2.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.53	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	121	121	< 0.005	0.01	0.01	123

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.79	6.79	< 0.005	< 0.005	0.01	6.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.12	1.12	< 0.005	< 0.005	< 0.005	1.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Paving (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	2.09	2.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.05	0.04	0.38	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.11	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.53	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	121	121	< 0.005	0.01	0.01	123
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.79	6.79	< 0.005	< 0.005	0.01	6.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.12	1.12	< 0.005	< 0.005	< 0.005	1.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	60.1	60.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	60.1	60.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34

Architect Coatings	3.29	3.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	0.60	0.60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.81	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	161	161	< 0.005	0.01	0.50	163
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.64	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	145	145	< 0.005	0.01	0.01	147
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.17	8.17	< 0.005	< 0.005	0.01	8.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.35	1.35	< 0.005	< 0.005	< 0.005	1.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Architectural Coating (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	60.1	60.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	60.1	60.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	3.29	3.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	0.60	0.60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.81	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	161	161	< 0.005	0.01	0.50	163
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.64	0.00	0.00	0.15	0.15	0.00	0.04	0.04	—	145	145	< 0.005	0.01	0.01	147
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.17	8.17	< 0.005	< 0.005	0.01	8.29
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.35	1.35	< 0.005	< 0.005	< 0.005	1.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Wareho Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,205	1,205	0.19	0.02	—	1,217
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.02	< 0.005	—	128
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,332	1,332	0.22	0.03	—	1,345
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,205	1,205	0.19	0.02	—	1,217
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.02	< 0.005	—	128
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,332	1,332	0.22	0.03	—	1,345
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.03	< 0.005	—	201
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	21.1	21.1	< 0.005	< 0.005	—	21.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	221	221	0.04	< 0.005	—	223

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,205	1,205	0.19	0.02	—	1,217
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.02	< 0.005	—	128
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,332	1,332	0.22	0.03	—	1,345
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,205	1,205	0.19	0.02	—	1,217
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.02	< 0.005	—	128
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,332	1,332	0.22	0.03	—	1,345

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.03	< 0.005	—	201
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	21.1	21.1	< 0.005	< 0.005	—	21.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	221	221	0.04	< 0.005	—	223

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.03	0.02	0.31	0.26	< 0.005	0.02	—	0.02	0.02	—	0.02	—	368	368	0.03	< 0.005	—	369
General Office Building	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	101	101	0.01	< 0.005	—	101
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	468	468	0.04	< 0.005	—	470
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig Warehouse-No Rail	0.03	0.02	0.31	0.26	< 0.005	0.02	—	0.02	0.02	—	0.02	—	368	368	0.03	< 0.005	—	369
General Office Building	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	101	101	0.01	< 0.005	—	101
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	468	468	0.04	< 0.005	—	470
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	60.9	60.9	0.01	< 0.005	—	61.1
General Office Building	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.7	16.7	< 0.005	< 0.005	—	16.7
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	77.5	77.5	0.01	< 0.005	—	77.8

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.03	0.02	0.31	0.26	< 0.005	0.02	—	0.02	0.02	—	0.02	—	368	368	0.03	< 0.005	—	369

General Office Building	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	101	101	0.01	< 0.005	—	101
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	468	468	0.04	< 0.005	—	470
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.03	0.02	0.31	0.26	< 0.005	0.02	—	0.02	0.02	—	0.02	—	368	368	0.03	< 0.005	—	369
General Office Building	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	101	101	0.01	< 0.005	—	101
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	468	468	0.04	< 0.005	—	470
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	60.9	60.9	0.01	< 0.005	—	61.1
General Office Building	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	16.7	16.7	< 0.005	< 0.005	—	16.7
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	77.5	77.5	0.01	< 0.005	—	77.8

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.71	4.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.33	0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.68	1.55	0.08	9.46	< 0.005	0.02	—	0.02	0.01	—	0.01	—	38.9	38.9	< 0.005	< 0.005	—	39.0
Total	6.72	6.59	0.08	9.46	< 0.005	0.02	—	0.02	0.01	—	0.01	—	38.9	38.9	< 0.005	< 0.005	—	39.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.71	4.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.33	0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.04	5.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Product	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.06	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.85	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.18	3.18	< 0.005	< 0.005	—	3.19
Total	1.07	1.06	0.01	0.85	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.18	3.18	< 0.005	< 0.005	—	3.19

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	4.71	4.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.33	0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.68	1.55	0.08	9.46	< 0.005	0.02	—	0.02	0.01	—	0.01	—	38.9	38.9	< 0.005	< 0.005	—	39.0
Total	6.72	6.59	0.08	9.46	< 0.005	0.02	—	0.02	0.01	—	0.01	—	38.9	38.9	< 0.005	< 0.005	—	39.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	4.71	4.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.33	0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.04	5.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.06	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.15	0.14	0.01	0.85	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.18	3.18	< 0.005	< 0.005	—	3.19
Total	1.07	1.06	0.01	0.85	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.18	3.18	< 0.005	< 0.005	—	3.19

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	91.5	87.0	179	9.40	0.22	—	481

General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.70	3.52	7.22	0.38	0.01	—	19.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	95.3	90.6	186	9.78	0.23	—	500
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	91.5	87.0	179	9.40	0.22	—	481
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.70	3.52	7.22	0.38	0.01	—	19.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	95.3	90.6	186	9.78	0.23	—	500
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	15.2	14.4	29.6	1.56	0.04	—	79.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.61	0.58	1.20	0.06	< 0.005	—	3.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.8	15.0	30.8	1.62	0.04	—	82.8

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	91.5	87.0	179	9.40	0.22	—	481
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.70	3.52	7.22	0.38	0.01	—	19.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	95.3	90.6	186	9.78	0.23	—	500
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	91.5	87.0	179	9.40	0.22	—	481
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.70	3.52	7.22	0.38	0.01	—	19.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	95.3	90.6	186	9.78	0.23	—	500
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	15.2	14.4	29.6	1.56	0.04	—	79.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.61	0.58	1.20	0.06	< 0.005	—	3.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	15.8	15.0	30.8	1.62	0.04	—	82.8

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	105	0.00	105	10.5	0.00	—	366
General Office Building	—	—	—	—	—	—	—	—	—	—	—	5.45	0.00	5.45	0.54	0.00	—	19.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	110	0.00	110	11.0	0.00	—	385
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	105	0.00	105	10.5	0.00	—	366
General Office Building	—	—	—	—	—	—	—	—	—	—	—	5.45	0.00	5.45	0.54	0.00	—	19.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	110	0.00	110	11.0	0.00	—	385
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.3	0.00	17.3	1.73	0.00	—	60.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.90	0.00	0.90	0.09	0.00	—	3.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	18.2	0.00	18.2	1.82	0.00	—	63.8

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	105	0.00	105	10.5	0.00	—	366

General Office Building	—	—	—	—	—	—	—	—	—	—	—	5.45	0.00	5.45	0.54	0.00	—	19.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	110	0.00	110	11.0	0.00	—	385
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	105	0.00	105	10.5	0.00	—	366
General Office Building	—	—	—	—	—	—	—	—	—	—	—	5.45	0.00	5.45	0.54	0.00	—	19.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	110	0.00	110	11.0	0.00	—	385
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.3	0.00	17.3	1.73	0.00	—	60.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.90	0.00	0.90	0.09	0.00	—	3.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	18.2	0.00	18.2	1.82	0.00	—	63.8

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	912	912

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	912	912

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5,506	5,506
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Wareho Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	912	912
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	912	912

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	6/1/2025	6/29/2025	5.00	20.0	—
Site Preparation	Site Preparation	6/30/2025	7/14/2025	5.00	10.0	—
Grading	Grading	7/15/2025	9/2/2025	5.00	35.0	—
Building Construction	Building Construction	9/3/2025	2/3/2027	5.00	370	—
Paving	Paving	2/4/2027	3/4/2027	5.00	20.0	—
Architectural Coating	Architectural Coating	3/5/2027	4/2/2027	5.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

Building Construction	Tractors/Loaders/Back	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42

Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.9	LDA,LDT1,LDT2
Demolition	Vendor	—	9.10	HHDT,MHDT
Demolition	Hauling	11.5	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.9	LDA,LDT1,LDT2
Site Preparation	Vendor	—	9.10	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	11.9	LDA,LDT1,LDT2
Grading	Vendor	—	9.10	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	90.3	11.9	LDA,LDT1,LDT2
Building Construction	Vendor	35.6	9.10	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

Paving	—	—	—	—
Paving	Worker	15.0	11.9	LDA,LDT1,LDT2
Paving	Vendor	—	9.10	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	18.1	11.9	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	9.10	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.9	LDA,LDT1,LDT2
Demolition	Vendor	—	9.10	HHDT,MHDT
Demolition	Hauling	11.5	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.9	LDA,LDT1,LDT2
Site Preparation	Vendor	—	9.10	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	11.9	LDA,LDT1,LDT2
Grading	Vendor	—	9.10	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

Building Construction	—	—	—	—
Building Construction	Worker	90.3	11.9	LDA,LDT1,LDT2
Building Construction	Vendor	35.6	9.10	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.9	LDA,LDT1,LDT2
Paving	Vendor	—	9.10	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	18.1	11.9	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	9.10	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	326,199	108,733	41,629

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	20,000	—
Site Preparation	0.00	0.00	15.0	0.00	—
Grading	0.00	0.00	105	0.00	—
Paving	0.00	0.00	0.00	0.00	15.9

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
General Office Building	0.00	0%
Other Asphalt Surfaces	15.9	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	382	382	382	139,430	5,425	5,425	5,425	1,980,125

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	382	382	382	139,430	5,425	5,425	5,425	1,980,125

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	326,199	108,733	41,629

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	2,155,732	204	0.0330	0.0040	1,147,590
General Office Building	227,565	204	0.0330	0.0040	313,893
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	2,155,732	204	0.0330	0.0040	1,147,590
General Office Building	227,565	204	0.0330	0.0040	313,893
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	47,774,631	0.00
General Office Building	1,932,499	0.00
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	47,774,631	0.00
General Office Building	1,932,499	0.00

Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	194	—
General Office Building	10.1	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	194	—
General Office Building	10.1	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	21.4	annual days of extreme heat
Extreme Precipitation	0.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	21.1	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	60.9

AQ-PM	31.6
AQ-DPM	43.4
Drinking Water	52.8
Lead Risk Housing	2.00
Pesticides	76.8
Toxic Releases	24.6
Traffic	69.8
Effect Indicators	—
CleanUp Sites	20.5
Groundwater	90.9
Haz Waste Facilities/Generators	88.2
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	38.8
Cardio-vascular	73.9
Low Birth Weights	51.8
Socioeconomic Factor Indicators	—
Education	32.2
Housing	13.1
Linguistic	39.8
Poverty	10.9
Unemployment	39.2

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—

Above Poverty	74.83639163
Employed	47.8121391
Median HI	—
Education	—
Bachelor's or higher	55.60118055
High school enrollment	26.62645964
Preschool enrollment	40.40805851
Transportation	—
Auto Access	81.29090209
Active commuting	36.22481714
Social	—
2-parent households	64.72475298
Voting	66.31592455
Neighborhood	—
Alcohol availability	90.27332221
Park access	51.80290004
Retail density	7.327088413
Supermarket access	28.5255999
Tree canopy	47.95329142
Housing	—
Homeownership	80.99576543
Housing habitability	92.24945464
Low-inc homeowner severe housing cost burden	86.9626588
Low-inc renter severe housing cost burden	79.71256256
Uncrowded housing	69.47260362
Health Outcomes	—
Insured adults	66.05928397
Arthritis	86.1

Asthma ER Admissions	51.6
High Blood Pressure	59.0
Cancer (excluding skin)	71.8
Asthma	65.7
Coronary Heart Disease	90.3
Chronic Obstructive Pulmonary Disease	86.1
Diagnosed Diabetes	79.4
Life Expectancy at Birth	59.9
Cognitively Disabled	66.4
Physically Disabled	93.4
Heart Attack ER Admissions	15.0
Mental Health Not Good	64.8
Chronic Kidney Disease	85.5
Obesity	59.8
Pedestrian Injuries	44.0
Physical Health Not Good	76.2
Stroke	88.3
Health Risk Behaviors	—
Binge Drinking	38.6
Current Smoker	56.8
No Leisure Time for Physical Activity	54.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	39.2
Elderly	81.9
English Speaking	58.2
Foreign-born	64.0

Outdoor Workers	48.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	33.7
Traffic Density	70.0
Traffic Access	0.0
Other Indices	—
Hardship	46.2
Other Decision Support	—
2016 Voting	49.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	43.0
Healthy Places Index Score for Project Location (b)	72.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Total acreage of 20.92 acres for Development Area.
Operations: Fleet Mix	Adjusted fleet mix to match Traffic study: 35.0785% heavy-duty trucks (HHD); remainder as light duty vehicles (LDA).

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Joaquin
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, kWh/mile for Energy Consumption, gallon/mile for Fuel Consumption. PHEV calculated based on total VMT.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Total VMT	**PM10_RUNEX**
San Joaquin	2022	T7 Tractor Class 8	Aggregate	10	Diesel	1683.346604	**0.014003507**
San Joaquin	2022	T7 Tractor Class 8	Aggregate	55	Diesel	20401.71991	**0.02163113**

Mobile Truck Emissions

On-site Pickup, Loading, and Return for Storage

pounds per gram: 0.002205

hours per day: 24

Line Source Volume #1:

Assumptions:	Factor:		Source:
1. Total travel distance per truck trip (one-day):	0.5	miles	As measured by Google Maps (conservative estimate)
2. # of trucks trips per day:	134	trips	Fehr & Peers, 2022
3. PM10 Mobile Emissions Factor:	**0.014003507**	g/mile	EMFAC2021
(San Joaquin County, 10 MPH, Year 2022, T7 Tractor Class 8)			

Therefore:

Total daily PM10 mobile emissions generated by the project along this line volume source:

0.938234969	**g/day-all vehicles**	
0.002068452	lbs/day-all vehicles	
0.754984826	**lbs/year-all vehicles**	0.743716

Max Hr Emissions

12.00 Peak hour truck trips (Fehr & Peers, 2022)

0.084021042	**g/hr-all vehicles**
0.000185234	**lbs/hr-all vehicles**

Mobile Truck Emissions

Off-site (0.25 miles distance)

pounds per gram: 0.002205

hours per day: 24

Line Source Volume #1:

Assumptions:	Factor:		Source:
1. Total travel distance per truck trip (one-day):	0.25	miles	As measured by Google Maps (conservative estimate)
2. # of trucks trips per day:	134	trips	Fehr & Peers, 2022
3. PM10 Mobile Emissions Factor:	**0.02163113**	g/mile	EMFAC2021
(San Joaquin County, 55 MPH, Year 2022, T7 Tractor Class 8)			

Therefore:

Total daily PM10 mobile emissions generated by the project along this line volume source:

0.724642855	**g/day-all vehicles**	
0.001597562	lbs/day-all vehicles	
0.583110178	**lbs/year-all vehicles**	0.574407

Max Hr Emissions

12.00 Peak hour truck trips (Fehr & Peers, 2022)

0.06489339	**g/hr-all vehicles**
0.000143065	**lbs/hr-all vehicles**

Truck Idling Emission Rates

Idling Emission Rates taken from tables 3.2-41 and 42, of the EMFAC2014 Volume III - Technical Documentation Guidebook:
http://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf

pounds per gram: 0.00220462

Idling Emissions:

Table 3.2-40: Revised HHD Diesel Truck Low Idle Emission Rates (after 2009)	PM10	**0.001**	g/hr-truck	
Table 3.2-41: High Idle Emissions Rates for Summer (2009 and later)	PM10	**0.003**	g/hr-truck	Note: the following calculation uses an average of the summer and
Table 3.2-42: High Idle Emissions Rates for Winter (2009 and later)	PM10	**0.004**	g/hr-truck	winter high idle emissions rates for the emission factor calcs.

0.000291667	g/5 minutes-truck	Note: Trucks are equiped with 5-min auto shutoff.
0.000291667	g/day-truck	
24	hours in day	
67	# of trucks/day	Source: Fehr & Peers, 2022
2	Idle Points per truck/day	Note: Assumption

Therefore:

0.039083333	g/day-all trucks
14.26541667	g/year-all trucks
0.031449823	lbs/year-all trucks
0.030980423	

Max Hr Emissions

12.00 Peak hour truck trips (Fehr & Peers, 2022)

0.0070000	**g/hr-all vehicles**
0.0000154	**lbs/hr-all vehicles**

Name **Prioritization Calculator**

Applicability	Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in gray areas.
Author or updater	Matthew Cegielski *Last Update* November 2, 2020
Facility:	
ID#:	
Project #:	
Unit and Process#	

Operating Hours hr/yr		8,760.00			
Receptor Proximity and Proximity Factors		**Cancer Score**	**Chronic Score**	**Acute Score**	**Max Score**
0< R<100	**1.000**	3.16E+00	4.69E-03	0.00E+00	3.16E+00
100≤R<250	**0.250**	7.91E-01	1.17E-03	0.00E+00	7.91E-01
250≤R<500	**0.040**	1.27E-01	1.88E-04	0.00E+00	1.27E-01
500≤R<1000	**0.011**	3.48E-02	5.16E-05	0.00E+00	3.48E-02
1000≤R<1500	**0.003**	9.49E-03	1.41E-05	0.00E+00	9.49E-03
1500≤R<2000	**0.002**	6.33E-03	9.38E-06	0.00E+00	6.33E-03
2000<R	**0.001**	3.16E-03	4.69E-06	0.00E+00	3.16E-03

Receptor proximity is in meters. Priortization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

Enter the unit's CAS# of the substances emitted and their amounts.

Prioritzation score for each substance generated below. Totals on last row.

0							
Substance	**CAS#**	**Annual Emissions (lbs/yr)**	**Maximum Hourly (lbs/hr)**	**Average Hourly (lbs/hr)**	**Cancer**	**Chronic**	**Acute**
Diesel engine exhaust, particulate matter (Diesel PM)	**9901**	1.369544826	0.180808411	1.56E-04	3.16E+00	4.69E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Totals	**3.16E+00**	**4.69E-03**	**0.00E+00**

Use the substance dropdown list in the CAS# Finder to locate CAS# of substances.

Substance	CAS# Finder
Diesel engine exhaust, particulate matter (Diesel PM)	9901

APPENDIX C

Preliminary Arborist Report and Tree Inventory

RECEIVED
August 16, 2021
City of Tracy
Development Services

California Tree and Landscape Consulting, Inc.

July 20, 2021

Abbie Wertheim, Development Manager
Panattoni Development Company, Inc.
8775 Folsom Blvd., Suite 200
Sacramento, California 92826
Via Email: awertheim@panattoni.com

PRELIMINARY ARBORIST REPORT AND TREE INVENTORY

RE: 16286 W. Schulte Road, APN 209-230-250, County of San Joaquin Jurisdiction

Executive Summary

Panattoni Development Company, Inc. contacted California Tree and Landscape Consulting, Inc. to inventory and evaluate the trees on the site for purposes of providing preliminary tree information for planning for development of the parcel. The property is located at 16286 W. Schulte Road, in Tracy, California, and is subject to the jurisdiction of San Joaquin County. See Supporting Information Appendix 1 – Tree Inventory Field Exhibit.

Thomas M. Stein, ISA Certified Arborist #WE-12854A, was on the site July 2, 2021, to provide species identification, measurements of diameter and canopy, field condition notes, and arborist ratings. A total of 33 trees were included in the inventory, none of which are protected by the County of San Joaquin Ordinance Code.

Tree Species	Trees Inventoried	Trees on the Site[1]	Protected Trees	Trees Proposed for Removal
California palm, *Washingtonia filifera*	1	1	0	1
California pepper tree, *Schinus molle*	18	18	0	14
Date palm, *Phoenix dactylifera*	3	3	0	0
Elm, *Ulmus sp.*	2	2	0	2
Juniper, *Juniper sp.*	1	1	0	1
Mexican fan palm, *Washingtonia robusta*	5	5	0	1
Tamarisk, *Tamarix sp.*	3	3	0	3
TOTAL	**33**	**33**	**0**	**22**

See Appendices for specific information on each tree and preservation requirements and/or restrictions.

[1] CalTLC is not a licensed land surveyor. Tree locations are approximate and we do not determine tree ownership. Trees which appear to be on another parcel are listed as off-site and treated as the property of that parcel.

Methods

Appendix 2 in this report is the detailed inventory of the trees. The following terms will further explain our methods and findings.

The protected trees evaluated as part of this report have a numbered tag that was placed on each one that is 1-1/8" x 1-3/8", green anodized aluminum, "acorn" shaped, and labeled: CalTLC, Auburn, CA with 1/4" pre-stamped tree number and Tree Tag. They are attached with a natural-colored aluminum 10d nail, installed at approximately 6 feet above ground level on the approximate north side of the tree. The tag should last ~10-20+ years depending on the species, before it is enveloped by the trees' normal growth cycle.

A Level 2 – Basic Visual Assessment was performed in accordance with the International Society of Arboriculture's best management practices. This assessment level is limited to the observation of conditions and defects which are readily visible. Additional limiting factors, such as blackberries, poison oak, and/or debris piled at the base of a tree can inhibit the visual assessment.

Tree Location: The GPS location of each tree was collected using the Planit Geo's Tree Plotter application on an Apple iPad. The Tree Location Map was hand plotted on two differently scaled Google Earth aerial images.

Tree Measurements: DBH (diameter breast high) is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if that varies then the location where it is measured is noted. A steel diameter tape was used to measure the diameter. Canopy radius measurements may also have been estimated due to obstructions, such as steep slopes, fences, or other trees.

Terms

Field Tag #	The pre-stamped tree number on the tag which is installed at approximately 6 feet above ground level on the north side of the tree.
Old Tag #	If additional field tags are found on the trees and are legible, they are listed here.
Species	The species of a tree is listed by our local and correct common name and botanical name by genus (capitalized) and species (lower case). Oaks frequently cross-pollinate and hybridize, but the identification is towards the strongest characteristics.
DBH	Diameter breast high' is normally measured at 4'6" (above the average ground height for "Urban Forestry"), but if that varies then the location where it is measured is noted in the next column "measured at"
Measured at	Height above average ground level where the measurement of DBH was taken.
Canopy Radius	The farthest extent of the crown composed of leaves and small twigs. Most trees are not evenly balanced. This measurement represents the longest extension from the trunk to the outer canopy. The dripline measurement is from the center point of the tree and is shown on the Tree Location Map as a circle. This measurement further defines the protection zone if specified in the local ordinance as such or can indicate if pruning may be required for development
Protected Root Zone	The radius of the protected root zone is a circle equal to the trunk diameter inches converted to feet and factored by tree age, condition and health pursuant to the industry standard. Best Management Practices: Managing Trees During Construction, the companion publication to the Approved American National Standard, provides guidance regarding minimum tree root protection zones for long term survival. In instances where a tree is multi-stemmed, the protected root zone is equal to the extrapolated diameter (sum of the area of each stem converted to a single stem) factored by tree age, condition and health.

Arborist Rating

Subjective to condition and is based on both the health and structure of the tree. All of the trees were rated for condition, per the recognized national standard as set up by the Council of Tree and Landscape Appraisers and the International Society of Arboriculture (ISA) on a numeric scale of 5 (being the highest) to 0 (the worst condition, dead) as in Chart A. The rating was done in the field at the time of the measuring and inspection.

No problem(s)	Excellent	**5**	No problems found from a visual ground inspection. Structurally, these trees have properly spaced branches and near perfect
No apparent problem(s)	Good or Fair to Good	**4**	The tree is in good condition and there are no apparent problems that a Certified Arborist can see from a visual ground inspection. If potential structural or health problems are tended to at this stage future hazard can be reduced and more serious health problems can be averted.
Minor problem(s)	Fair	**3**	The tree is in fair condition. There are some minor structural or health problems that pose no immediate danger. When the recommended actions in an arborist report are completed correctly the defect(s) can be minimized or eliminated and/or health can be improved.
Major or uncorrectable problems (2)	Fair to Poor	**2**	The tree has major problems. If the option is taken to preserve the tree, additional evaluation to identify if health or structure can be improved with correct arboricultural work including, but not limited to: pruning, cabling, bracing, bolting, guying, spraying, mistletoe removal, vertical mulching, fertilization, etc. Additionally, risk should be evaluated as a tree rated 2 may have structural conditions which indicate there is a high likelihood of some type of failure. Tree rated 2 should be removed if these additional evaluations will not be performed.
Extreme problem(s)	Poor	**1**	The problems are extreme. This rating is assigned to a tree that has structural and/or health problems that no amount of work or effort can change. The issues may or may not be considered a dangerous situation.
Dead	Dead	**0**	This indicates the tree has no significant sign of life.

Notes: Provide notable details about each tree which are factors considered in the determination of the tree rating including: (a) condition of root crown and/or roots; (b) condition of trunk; (c) condition of limbs and structure; (d) growth history and twig condition; (e) leaf appearance; and (f) dripline environment. Notes also indicate if the standard tree evaluation procedure was not followed (for example - why DBH may have been measured at a location other than the standard 54”). Additionally, notes will list any evaluation limiting factors such as debris at the base of a tree.

Actions Recommended actions to increase health and longevity.

Development Impacts Projected development impacts are based solely on distance relationships between tree location and grading. Field inspections and findings during the project at the time of grading and trenching can change relative impacts. Closely followed guidelines and requirements can result in a higher chance of survival, while requirements that are overlooked can result in a dramatically lower chance of survival. Impacts are measured as follows:

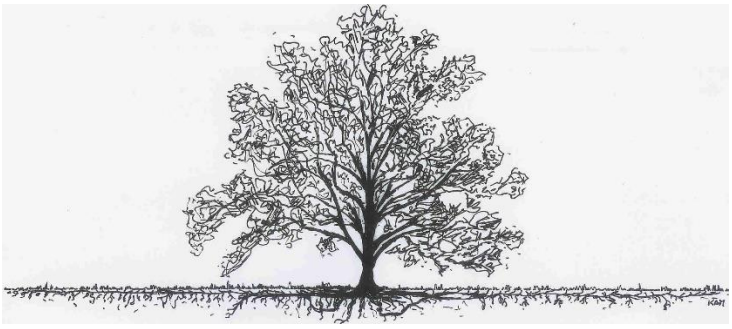
Impact Term:	Long Term Result of Impact:
Negligible	Tree is unlikely to show any symptoms. Chance of survival post development is excellent. Impacts to the Protected Root Zone are less than 5%.
Minor	Tree is likely to show minor symptoms. Chance of survival post development is good. Impacts to the Protected Root Zone are less than 15% and species tolerance is good.
Moderate	Tree is likely to show moderate symptoms. Chance of survival post development is fair. Impacts to the Protected Root Zone are less than 35% and species tolerance is good or moderate.
Severe	Tree is likely to show moderate symptoms annually and a pattern of decline. Chance of long-term survival post development is low. Impacts to the Protected Root Zone are up to 50% and species tolerance is moderate to poor.
Critical	Tree is likely to show moderate to severe symptoms annually and a pattern of decline. Chance of long-term survival post development is negligible. Impacts to the Protected Root Zone are up to 80%.

Discussion

Trees need to be protected from normal construction practices if they are to remain on the site and are expected to survive long term. While construction damage in the root zone is often the death of a tree, the time from when the damage occurs to when the symptoms begin and/or the tree dies can be years. Our recommendations are based on experience and the local ordinance requirements to enhance tree longevity. It requires the calculated root zone must remain intact as an underground ecosystem despite the use of heavy equipment to install foundations, driveways, underground utilities, and landscape irrigation systems. Simply walking and driving on soil can have serious consequences to tree health. The Tree Preservation Requirements and General Development Guidelines should be incorporated into the site plans and enforced onsite. The project arborist should be included in the development team during construction to provide expertise and make additional recommendations if additional impacts occur or tree response is poor.

Root Structure

The majority of a tree's roots are contained in a radius from the main trunk outward approximately two to three times the canopy of the tree. These roots are located in the top 6" to 3' of soil. It is a common misconception that a tree underground resembles the canopy. The correct root structure of a tree is in the drawing below. All plants' roots need both water and air for survival. Poor canopy development or canopy decline in mature trees after development is often the result of inadequate root space and/or soil compaction.



The reality of where roots are generally located

Pruning Mature Trees for Risk Reduction and/or Development Clearance

There are few good reasons to prune mature trees. Removal of deadwood, directional pruning, removal of decayed or damaged wood, and end-weight reduction as a method of mitigation for structural faults are the only reasons a mature tree should be pruned. Live wood over 3" should not be pruned unless absolutely necessary. Pruning cuts should be clean and correctly placed. Pruning should be done in accordance with the American National Standards Institute (ANSI) A300 standards.

Pruning causes an open wound in the tree. Trees do not "heal" they compartmentalize. It is far better to use more small cuts than a few large cuts as small pruning wounds reduce risk while large wounds increase risk. Any wound made today will always remain, but a healthy tree, in the absence of decay in the wound, will 'cover it' with callus tissue. Large, old pruning wounds which did not close with callous tissue often have advanced decay. These wounds are a likely failure point. Mature trees with large wounds have a high risk of failure.

Overweight limbs are a common structural fault in suppressed trees. There are two remedial actions for overweight limbs (1) prune the limb to reduce the extension of the canopy, or (2) cable the limb to reduce movement. Cables do not hold weight they only stabilize the limb and additionally require annual inspection.

Arborist Classifications

There are different types of Arborists:

Tree Removal and/or Pruning Companies: These companies may be licensed by the State of California to do business as a tree removal company, but they do not necessarily know anything about trees biology.

Arborists: Arborist is a broad term intended to mean someone with specialized knowledge of trees, but it is often used to imply knowledge that is not there.

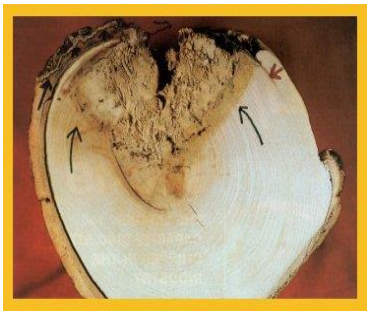
ISA Certified Arborist: An International Society of Arboriculture Certified Arborist is someone who has trained, met the qualifications for application, and been tested to have specialized knowledge of trees. You can look up certified arborists at the International Society of Arboriculture website: isa-arbor.org.

Consulting Arborist: An American Society of Consulting Arborists Registered Consulting Arborist is someone who has been trained and then tested to have specialized knowledge of trees; and trained and tested to provide high quality reports and documentation. You can look up registered consulting arborists at the American Society of Consulting Arborists website: ASCA-consultants.org.

Decay in Trees

Decay (in General): Fungi cause all decay of living trees. Decay is considered a disease because cell walls are altered, wood strength is affected, and living sapwood cells may be killed. Fungi decay wood by secreting enzymes. Different types of fungi cause different types of decay through the secretion of different chemical enzymes. Some decays, such as white rot, cause less wood strength loss than others because they first attack the lignin (causes cell walls to thicken and reduces susceptibility to decay and pest damage) secondarily the cellulose (another structural component in a cell walls). Others, such as soft rot, attack the cellulose chain and cause substantial losses in wood strength even in the initial stages of decay. Brown rot causes wood to become brittle and fractures easily with tension. Identification of internal decay in a tree is difficult because visible evidence may not be present.

According to Evaluation of Hazard Trees in Urban Areas (Matheny, 1994) decay is a critical factor in the stability of the tree. As decay progresses in the trunk, the stem becomes a hollow tube or cylinder rather than a solid rod. This change is not readily apparent to the casual observer. Trees require only a small amount of bark and wood to transport water, minerals and sugars. Interior heartwood can be eliminated (or degraded) to a great degree without compromising the transport process. Therefore, trees can contain significant amounts of decay without showing decline symptoms in the crown. Compartmentalization of decay in trees is a biological process in which the cellular tissue around wounds is changed to inhibit fungal growth and provide a barrier against the spread of decay agents into additional cells. The weakest of the barrier zones is the formation of the vertical wall. Accordingly, while a tree may be able to limit decay progression inward at large pruning cuts, in the event that there are more than one pruning cut located vertically along the main trunk of the tree, the likelihood of decay progression and the associated structural loss of integrity of the internal wood is high.



Oak Tree Impacts

Our native oak trees are easily damaged or killed by having the soil within the Protected Root Zone (PRZ) disturbed or compacted. All of the work initially performed around protected trees that will be saved should be done by people rather than by wheeled or track type tractors. Oaks are fragile giants that can take little change in soil grade, compaction, or warm season watering. Don't be fooled into believing that warm season watering has no adverse effects on native oaks. Decline and eventual death can take as long as 5-20 years with poor care and inappropriate watering. Oaks can live hundreds of years if treated properly during construction, as well as later with proper pruning, and the appropriate landscape/irrigation design.

RECOMMENDATIONS: Summary of Tree Protection Measures

The Owner and/or Developer should ensure the project arborist's protection measures are incorporated into the site plans and followed. Tree specific protection measures can be found in Appendix 2 – Tree Data.

- The project arborist should inspect the fencing prior to grading and/or grubbing for compliance with the recommended protection zones.
- All stumps within the root zone of trees to be preserved shall be ground out using a stump router or left in place. **No trunk within the root zone of other trees shall be removed using a backhoe or other piece of grading equipment.**
- Prior to any grading, or other work on the site that will come within 50' of any tree to be preserved, irrigation will be required from April through September and placement of a 4-6" layer of chip mulch over the protected root zone of all trees that will be impacted. Chips should be obtained from onsite materials and trees to be removed.
- Clearance pruning should include removal of all the lower foliage that may interfere with equipment PRIOR to having grading or other equipment on site. The Project Arborist should approve the extent of foliage elevation and oversee the pruning to be performed by a contractor who is an ISA Certified Arborist.

- Clearly designate an area on the site outside the drip line of all trees where construction materials may be stored, and parking can take place. No materials or parking shall take place within the root zones of protected trees.
- Any and all work to be performed inside the protected root zone fencing shall be supervised by the project arborist.
- Trenching inside the protected root zone shall be by a hydraulic or air spade, placing pipes underneath the roots, or boring deeper trenches underneath the roots.
- Follow all of the General Development Guidelines, Appendix 3, for all trees.

Report Prepared by:

Edwin E. Stirtz, Consulting Arborist
International Society of Arboriculture
Certified Arborist WE-0510A
ISA Tree Risk Assessment Qualified
Member, American Society of Consulting Arborists

Enc.: Appendix 1 – Tree Inventory Field Exhibit
Appendix 2 – Tree Data
Appendix 3 – General Development Guidelines

Bibliography

International Society of Arboriculture. (2015). *Glossary of Arboricultural Terms.* Champaign: International Society of Arboriculture.

L.R., C. (2003). *Reducing Infrastructure Damage by Tree Roots.* Porterville: International Society of Arboriculture.

Matheny, J. C. (1994). *Evaluation of Hazard Trees in Urban Areas, Second Edition.* Champaign: International Society of Arboriculture.

Menzer, K. (2008). *Consulting Arborist Report.*

Smiley. (2008). *Managing Trees During Construction, Best Management Practices.* Champaign: International Society of Arboriculture.

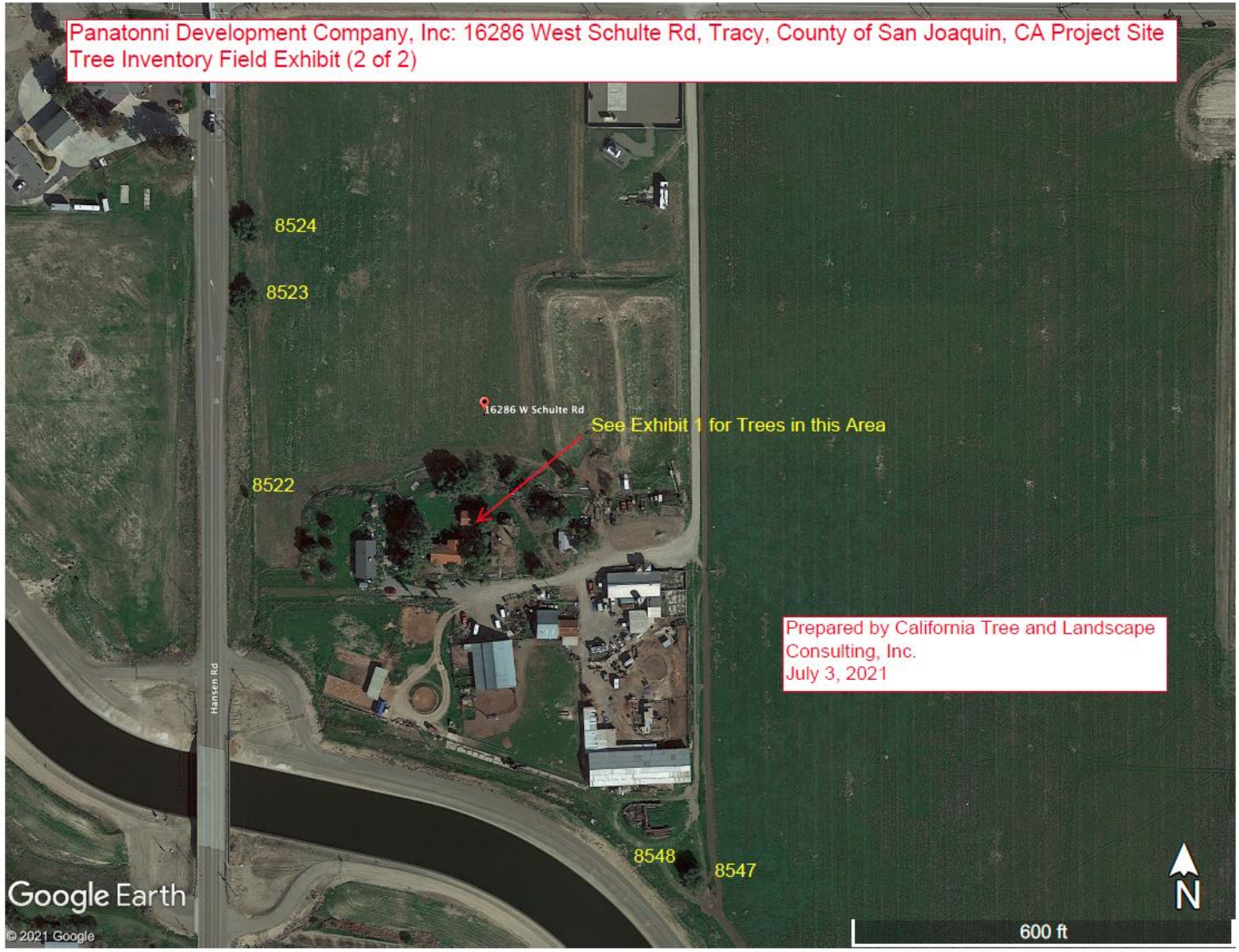
Stamen, R. (1997). *California Arboriculture Law.* Riverside: Law Offices of Randall S. Stamen.

Tree Care Industry Association. (2017). *Tree, Shrub, and Other Woody Plant Management - Standard Practices (Pruning).* Londonderry: Tree Care Industry Association.

Urban, J. (2008). *Up by the Roots.* Champaign: International Society of Arboriculture.

APPENDIX 1 – TREE INVENTORY FIELD EXHIBIT (1 OF 2)

APPENDIX 1 – TREE INVENTORY FIELD EXHIBIT (2 OF 2)



APPENDIX 2 – TREE DATA

Tree ID	Protected Native Oak Tree	Protected Heritage Oak Tree 32"+	Offsite	Common Name	Latin Name	Condition	Multi-Stems	DBH*	DBH**	Diameter Measured At (ft)	Crown Spread	Notes	Recommendations
8518	No	No		Date palm	*Phoenix dactylifera*	1 Poor - Extreme problems		22	22	4.5	18	Root collar obscured by dead fronds. DBH/DLR estimated. Tag on frond north side.	Prune dead fronds at base.
8519	No	No		Date palm	*Phoenix dactylifera*	3 Fair - Minor problems		23	23	4.5	15	Root crown partially obscured by fallen utility pole. DLR estimated. Poor crown density. Tag on trunk.	None at this time.
8520	No	No		Date palm	*Phoenix dactylifera*	3 Fair - Minor problems		23	23	4.5	18	Trunk and root collar obscured by excessive dead fronds. Tag on dead frond north side.	Prune dead fronds.
8521	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems	7,9,12	28	16.55	4.5	20	Root crown obscured by debris and dead branches. DBH/DLR estimated. Northeast branch broken at ~10 feet above grade. Poor crown density. Dead tree adjacent to west.	Clean out crown and remove debris around base of tree. Remove adjacent dead tree.
8522	No	No		Mexican fan palm	*Washingtonia robusta*	1 Poor - Extreme problems		17	17	4.5	10	Growing underneath electrical wires. Trunk has burn 4-11 feet above grade. Dead fronds and missing fronds. Poor crown density.	**Remove due to nature and extent of defects.**
8523	No	No		California pepper tree	*Schinus molle*	3 Fair - Minor problems		27	27	4.5	25	Growing adjacent to barbed-wire fence. DBH/DLR estimated. Codominant branching 5 feet above grade. Surface roots. Possible decay pocket in primary crotch. Dead branches throughout.	Clean out crown.
8524	No	No		California pepper tree	*Schinus molle*	3 Fair - Minor problems		39	39	1	33	Growing adjacent to barbed-wire fence. DBH/DLR estimated. Codominant branching 2 feet above grade with included bark. Out of balance NW.	Clean out crown.
8525	No	No		Mexican fan palm	*Washingtonia robusta*	1 Poor - Extreme problems		15	15	4.5	8	Root crown obscured by weeds and debris. Dead fronds attached to ~20 feet. Tree adjacent to electrical wires.	Prune dead fronds.
8526	No	No		Mexican fan palm	*Washingtonia robusta*	3 Fair - Minor problems		15	15	4.5	6	DBH/DLR estimated due to presence of dead fronds. Root crown obscured by dead fronds. Growing under electrical wires.	Prune dead fronds.
8527	No	No		Mexican fan palm	*Washingtonia robusta*	3 Fair - Minor problems		13	13	4.5	8	DLR estimated. Dead fronds attached trunk to 30 feet above grade. Growing just north of electrical wires.	Prune dead fronds.
8528	No	No		California pepper tree	*Schinus molle*	3 Fair - Minor problems		36	36	4.5	24	Growing adjacent to yard fence. Root collar buried. DBH/DLR estimated. Codominant branching ~15 feet above grade. East main scaffold broken ~20 feet above grade. Moderate cavities with decay.	Clean out crown.

Tree ID	Protected Native Oak Tree	Protected Heritage Oak Tree 32"+	Offsite	Common Name	Latin Name	Condition	Multi-Stems	DBH*	DBH**	Diameter Measured At (ft)	Crown Spread	Notes	Recommendations
8529	No	No		Tamarisk	*Tamarix sp.*	1 Poor - Extreme problems	35,35	70	49.5	4.5	35	Root crown obscured by debris and dead branches. DBH/DLR estimated. Extensive re-sprouting with weakly attached branches. Overextended branches with visible cracks. Severe lean. Cavities with moderate decay. Poor crown density.	**Remove due to nature and extent of defects.**
8530	No	No		Tamarisk	*Tamarix sp.*	1 Poor - Extreme problems	35,45	80	57.01	4.5	40	DBH/DLR estimated. Root collar covered by debris. Weakly attached re-sprouts throughout tree. Branches at grade. Severe northwest lean of north stem. Codominant stems with dead branches. Improperly pruned with included bark. Overextended branches. Cavities with moderate decay.	**Remove due to nature and extent of defects.**
8531	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems	20,25	45	32.02	4.5	35	Growing adjacent to barbed-wire fence. DBH/DLR estimated. West stem has seam from grade to 12 feet above grade with suspected decay. Hangers throughout. Branches 1 foot above grade. Cavities with extensive decay. Codominant stems. Dead and overextended branches.	**Remove due to nature and extent of defects.**
8532	No	No		California palm	*Washingtonia filifera*	1 Poor - Extreme problems		14	14	4.5		Growing adjacent to old home. Root crown partially obscured by deck. DBH/DLR estimated. Dead fronds 6-22 feet above grade. Slight lean south. Damaged anchoring roots. Dead/sloughing bark.	**Remove due to nature and extent of defects.**
8533	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems		40	40	1	25	Root collar and lower trunk obscured by dead branches. DBH/DLR estimated. North stem failed and re-sprouted. Weakly attached branches throughout. Broken hangers. Dead branches. Improperly pruned.	**Remove due to nature and extent of defects.**
8534	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems	28,36	64	45.61	4.5	25	Growing adjacent to fence north side of root collar. Root collar obscured. Branches 1 foot above grade. Extensive decay in lower stem of southwest side. Dead branches throughout. Northwest stem also has decay. Codominant stems. Cavities with moderate to extensive decay. Poor crown density.	**Remove due to nature and extent of defects.**
8535	No	No		Tamarisk	*Tamarix sp.*	1 Poor - Extreme problems		50	50	4.5	40	Root crown obscured by needles. Dead branches throughout tree. Codominant branching ~15 feet above grade. Southeast stem failed 17 feet above grade with weakly attached re-sprouts. Poor crown density.	**Remove due to nature and extent of defects.**
8536	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems		12	12	4.5	12	Buried root collar. DBH/DLR estimated. Codominant stems with weak attachments. Dead Branches. Poor Crown Density. Cavities with extensive decay. Mechanical damage. Poor Taper. Tree is 90% dead.	**Remove due to nature and extent of defects.**
8537	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems		44	44	1	35	Root crown obscured by debris. Codominant branching 3 feet above grade with weak attachments. Cavities with extensive decay. East and north stems failed and died. Broken branches throughout. Poor crown density.	**Remove due to nature and extent of defects.**

Tree ID	Protected Native Oak Tree	Protected Heritage Oak Tree 32"+	Offsite	Common Name	Latin Name	Condition	Multi-Stems	DBH*	DBH**	Diameter Measured At (ft)	Crown Spread	Notes	Recommendations
8538	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems		19	19	4.5	20	Root crown obscured by debris. Growing adjacent and surrounded by barbed-wire fence. Codominant stems with weak attachments. Cavities with extensive decay. North stems failed 6 feet above grade. Poor crown density throughout.	**Remove due to nature and extent of defects.**
8539	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems		21	21	4.5	29	Root crown obscured by weeds and debris. Extensive decay in lower trunk. Tree partially failed to north. Codominant stems with weak attachments. Dead branches. Poor crown density. Visible cracks. Cavities with extensive decay.	**Remove due to nature and extent of defects.**
8540	No	No		Elm	*Ulmus sp.*	1 Poor - Extreme problems		12	12	4.5	24	Tree leaning south moderately. Partially failed 15 feet above grade. ~25% living and 75% dead. Codominant stems with weak attachments. Dead branches. Poor crown density. Cavities with extensive decay. Missing/dead bark.	**Remove due to nature and extent of defects.**
8541	No	No		Elm	*Ulmus sp.*	1 Poor - Extreme problems	13,16	29	20.62	3	30	Branches at grade. DLR estimated. Cavities with minor decay. Codominant stems with included bark. Dead branches. Poor crown density. Tree is 80% dead.	**Remove due to nature and extent of defects.**
8542	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems		10	10	4.5	17	Root crown obscured by debris. Partially failed to southeast. Dead branches throughout. Cavities with minor decay. Codominant stems. Severe lean. Poor crown density.	**Remove due to nature and extent of defects.**
8543	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems		16	16	4.5	15	Root crown obscured by debris. Tree growing in barbed-wire fence. Tree partially failed to northeast. Extensive decay in lower trunk. Codominant stems. Dead branches. Cavities with extensive decay. Poor crown density.	**Remove due to nature and extent of defects.**
8544	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems		44	44	1	40	Root crown obscured by debris. Extensive decay cavity in lower trunk north side. Codominant branching 4 feet above grade with weak attachments and included bark. Multiple limb failures throughout tree. South stem failed 6 feet above ground. Poor crown density.	**Remove due to nature and extent of defects.**
8545	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems		21	21	4.5	23	Root collar obscured by grass and debris. DBH/DLR estimated. West stem failed ~15 feet above grade. Codominant stems with weak attachments. Dead branches. Poor crown density. Cavities with moderate decay.	**Remove due to nature and extent of defects.**
8546	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems	23,26	49	34.71	4.5	30	Root crown obscured by grass and debris. DBH/DLR estimated. Codominant branching 1 foot above grade with weak attachments and included bark. Multiple limb failures throughout tree. North system failed at ~12 feet above grade with weakly attached re-sprouting. Poor crown density.	**Remove due to nature and extent of defects.**
8547	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems		21	21	1	25	Root crown obscured by debris. DBH/DLR estimated. Codominant branching 2 feet above grade. Dead branches throughout. Suppressed by adjacent tree. Poor crown density.	**Remove due to nature and extent of defects.**

Tree ID	Protected Native Oak Tree	Protected Heritage Oak Tree 32"+	Offsite	Common Name	Latin Name	Condition	Multi-Stems	DBH*	DBH**	Diameter Measured At (ft)	Crown Spread	Notes	Recommendations
8548	No	No		California pepper tree	*Schinus molle*	1 Poor - Extreme problems		19	19	1	29	Root crown obscured by debris. Growing adjacent to previous tree. Out of balance/leaning northwest. Codominant branching 3 feet above grade with weak attachments. Cavities with moderate decay. Dead branches throughout. Surrounded by junk and debris. Poor crown density.	**Remove due to nature and extent of defects.**
8549	No	No		Juniper	*Juniper sp.*	1 Poor - Extreme problems	2,2,2,3,3,4	16	6.78	4.5	15	Growing adjacent to yard fence. Root crown obscured by needles and debris. DBH/DLR estimated. Minor cavities with decay. Drought stressed. Dead branches. Poor crown density.	**Remove due to nature and extent of defects.**
8550	No	No		Mexican fan palm	*Washingtonia robusta*	3 Fair - Minor problems		12	12	4.5	6	Growing adjacent to house. Slight lean east. Dead fronds pruned to 6 feet above grade. Root crown obscured by debris. DBH/DLR estimated.	None at this time.
							Total DBH	**966**	**848**				

TOTAL INVENTORIED TREES = 33 trees
TOTAL RECOMMENDED REMOVALS = 22 trees (606.25 aggregate diameter inches using sum of cross-sectional areas)
Rating (0-5, where 0 is dead) = 1=25 trees; 3=8 trees
Protected Native Oak Trees = None
Protected Heritage Oak Trees = None
Total Protected Trees = None

**Multi-stems calculated by the sum of all stems.*

***Multi-stems calculated by Tree Plotter, which uses the sum of the cross-sectional areas of each stem.*

APPENDIX 3 – GENERAL PRACTICES FOR TREE PROTECTION

Definitions

Root zone: The roots of trees grow fairly close to the surface of the soil, and spread out in a radial direction from the trunk of tree. A general rule of thumb is that they spread 2 to 3 times the radius of the canopy, or 1 to 1½ times the height of the tree. It is generally accepted that disturbance to root zones should be kept as far as possible from the trunk of a tree.

Inner Bark: The bark on large valley oaks and coast live oaks is quite thick, usually 1" to 2". If the bark is knocked off a tree, the inner bark, or cambial region, is exposed or removed. The cambial zone is the area of tissue responsible for adding new layers to the tree each year, so by removing it, the tree can only grow new tissue from the edges of the wound. In addition, the wood of the tree is exposed to decay fungi, so the trunk present at the time of the injury becomes susceptible to decay. Tree protection measures require that no activities occur which can knock the bark off the trees.

Methods Used in Tree Protection:

No matter how detailed Tree Protection Measures are in the initial Arborist Report, they will not accomplish their stated purpose unless they are applied to individual trees and a Project Arborist is hired to oversee the construction. The Project Arborist should have the ability to enforce the Protection Measures. The Project Arborist should be hired as soon as possible to assist in design and to become familiar with the project. He must be able to read and understand the project drawings and interpret the specifications. He should also have the ability to cooperate with the contractor, incorporating the contractor's ideas on how to accomplish the protection measures, wherever possible. It is advisable for the Project Arborist to be present at the Pre-Bid tour of the site, to answer questions the contractors may have about Tree Protection Measures. This also lets the contractors know how important tree preservation is to the developer.

Root Protection Zone (RPZ): Since in most construction projects it is not possible to protect the entire root zone of a tree, a Root Protection Zone is established for each tree to be preserved. The minimum Root Protection Zone is the area underneath the tree's canopy (out to the dripline, or edge of the canopy), plus 10'. The Project Arborist must approve work within the RPZ.

Irrigate, Fertilize, Mulch: Prior to grading on the site near any tree, the area within the Tree Protection fence should be fertilized with 4 pounds of nitrogen per 1000 square feet, and the fertilizer irrigated in. The irrigation should percolate at least 24 inches into the soil. This should be done no less than 2 weeks prior to grading or other root disturbing activities. After irrigating, cover the RPZ with at least 12" of leaf and twig mulch. Such mulch can be obtained from chipping or grinding the limbs of any trees removed on the site. Acceptable mulches can be obtained from nurseries or other commercial sources. Fibrous or shredded redwood or cedar bark mulch shall not be used anywhere on site.

Fence: Fence around the Root Protection Zone and restrict activity therein to prevent soil compaction by vehicles, foot traffic or material storage. The fenced area shall be off limits to all construction equipment, unless there is express written notification provided by the Project Arborist, and impacts are discussed and mitigated prior to work commencing.

No storage or cleaning of equipment or materials, or parking of any equipment can take place within the fenced off area, known as the RPZ.

The fence should be highly visible, and stout enough to keep vehicles and other equipment out. I recommend the fence be made of orange plastic protective fencing, kept in place by t-posts set no farther apart than 6'.

In areas of intense impact, a 6' chain link fence is preferred.

In areas with many trees, the RPZ can be fenced as one unit, rather than separately for each tree.

Where tree trunks are within 3' of the construction area, place 2" by 4" boards vertically against the tree trunks, even if fenced off. Hold the boards in place with wire. Do not nail them directly to the tree. The purpose of the boards is to protect the trunk, should any equipment stray into the RPZ.

Elevate Foliage: Where indicated, remove lower foliage from a tree to prevent limb breakage by equipment. Low foliage can usually be removed without harming the tree, unless more than 25% of the foliage is removed. Branches need to be removed at the anatomically correct location in order to prevent decay organisms from entering the trunk. For this reason, a contractor who is an ISA Certified Arborist should perform all pruning on protected trees.[2]

Expose and Cut Roots: Breaking roots with a backhoe, or crushing them with a grader, causes significant injury, which may subject the roots to decay. Ripping roots may cause them to splinter toward the base of the tree, creating much more injury than a clean cut would make. At any location where the root zone of a tree will be impacted by a trench or a cut (including a cut required for a fill and compaction), the roots shall be exposed with either a backhoe digging radially to the trunk, by hand digging, or by a hydraulic air spade, and then cut cleanly with a sharp instrument, such as chainsaw with a carbide chain. Once the roots are severed, the area behind the cut should be moistened and mulched. A root protection fence should also be erected to protect the remaining roots, if it is not already in place. Further grading or backhoe work required outside the established RPZ can then continue without further protection measures.

Protect Roots in Deeper Trenches: The location of utilities on the site can be very detrimental to trees. Design the project to use as few trenches as possible, and to keep them away from the major trees to be protected. Wherever possible, in areas where trenches will be very deep, consider boring under the roots of the trees, rather than digging the trench through the roots. This technique can be quite useful for utility trenches and pipelines.

Protect Roots in Small Trenches: After all construction is complete on a site, it is not unusual for the landscape contractor to come in and sever a large number of "preserved" roots during the installation of irrigation systems. The Project Arborist must therefore approve the landscape and irrigation plans. The irrigation system needs to be designed so the main lines are located outside the root zone of major trees, and the secondary lines are either laid on the surface (drip systems), or carefully dug with a hydraulic or air spade, and the flexible pipe fed underneath the major roots.

Design the irrigation system so it can slowly apply water (no more than ¼" to ½" of water per hour) over a longer period of time. This allows deep soaking of root zones. The system also needs to accommodate infrequent irrigation settings of once or twice a month, rather than several times a week.

Monitoring Tree Health During and After Construction: The Project Arborist should visit the site at least twice a month during construction to be certain the tree protection measures are being followed, to monitor the health of impacted trees, and make recommendations as to irrigation or other needs. After construction is complete, the arborist should monitor the site monthly for one year and make recommendations for care where needed.

Chemical Treatments: The owner or developer shall be responsible to contact an arborist with a pesticide applicators license to arrange for an application of a root enhancing hormone, such as Paclobutrazol, to mitigate the stress produced by the development **prior to grading**. Additionally, at the discretion of the project arborist, an insect infestation preventative for both boring insects and leaf feeding insects and/or fungal preventative for leaf surfaces may be required. Roots pruned during the course of performing a cut may be required to be treated with a biofungicide such as Bio-Tam.

[2] International Society of Arboriculture (ISA), maintains a program of Certifying individuals. Each Certified Arborist has a number and must maintain continuing education credits to remain Certified.

APPENDIX D

Preliminary Geotechnical Engineering Report

WallaceKuhl & ASSOCIATES | A Universal Engineering Sciences Company

Preliminary Geotechnical Engineering Report

WEST SCHULTE ROAD WAREHOUSE PROJECT

WKA No. 13393.02

March 23, 2022

Prepared for:

De Novo Planning Group

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Preliminary Geotechnical Engineering Report

WEST SCHULTE ROAD WAREHOUSE PROJECT

San Joaquin County, California

WKA No. 13393.02

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Preliminary Geotechnical Engineering Report
WEST SCHULTE ROAD WAREHOUSE PROJECT
16286 West Schulte Road
San Joaquin County, California
WKA No. 13393.02
March 23, 2022

INTRODUCTION

As authorized, we have completed a preliminary evaluation of the geotechnical conditions at the approximately 22-acre property located at 16286 West Schulte Road in San Joaquin County, directly south of the City of Tracy limits, California (Figure 1).

This report is preliminary in nature and describes the impacts of both anticipated soil and groundwater conditions on site development but is not intended for use in design and construction of the project.

A design-level geotechnical engineering study, including subsurface exploration, laboratory testing, and engineering analyses will be required to perform site-specific design for the project.

Purpose and Scope of Services

The purpose of this report has been to describe the nature and general engineering characteristics of the anticipated soil and groundwater conditions at the site and to provide preliminary findings, conclusions, and geotechnical recommendations regarding the feasibility of developing the site with a warehouse building and associated parking and drive aisles.

This report is preliminary in nature and describes the impacts of the anticipated soil and groundwater conditions on earthwork, buildings, and roadway construction. This report is not intended for final design and does not include specific recommendations that will be required for design and construction of the site.

Our scope of services included the following tasks:

1. a desk study, including the review of United States Geological Survey (USGS) geologic maps, United States Department of Agriculture (USDA) soil survey maps, historical aerial photographs, and available groundwater information;
2. a site reconnaissance to observe existing site conditions;
3. engineering analyses; and,
4. preparation of this report.

Figures and Attachments

This report contains a Vicinity Map as Figure 1 and a Site Plan showing the location of the proposed construction footprint at the site as Figure 2.

Proposed Development

We understand the project consists of the demolition of the three existing single-family residences and six ancillary structures and the redevelopment of the site with a warehouse building and a surface parking lot. The warehouse building is anticipated to be a slab-on-grade, concrete tilt-up structure covering about 217,466 square feet in plan area. Structural loads for the structures are anticipated to be relatively moderate to heavy based on this type of construction. Associated development would include construction of underground utilities, parking and drive areas, and exterior flatwork.

FINDINGS

Site Description

The project site consists of about 22 acres located directly south of the City of Tracy limits at 16286 West Schulte Road in San Joaquin County, California (Figure 1). The site consists of one parcel identified as San Joaquin County Assessor Parcel Number 209-230-250-000. The site is bounded to the north by West Schulte Road, beyond which are developed warehouse structures and surface parking lots; to the northeastern corner by the Williams Communication Parcel and to the remaining east by agricultural fields; to the south by the Delta Mendota Canal; and, to the west, by Hansen Road, beyond which is Cal Fire Station 26, orchards, and further west by the Delta Mendota Canal.

Review of topographic information available on the United States Geological Survey (*USGS) Topographic Map of Midway, California, California* dated 2021 indicates the site varies in elevation from about +175 to +185 feet relative to mean sea level (msl) with the majority of the site with a surface elevation of about +180 feet relative to mean sea level. This increases to about +195 feet relative to mean sea level at the southernmost portion of the site, near the Delta Mendota Canal.

At the time of our field reconnaissance in December of 2021, the site was not currently in use, and was primarily covered in grassy vegetation. Assorted debris including pipes and farm equipment were strewn around the northern portion of the site. The residential and ancillary

structures are apparent at the southern portion of the site, including harvest processing equipment. Trucks and storage containers are evident around the residences. Fencing is present around the perimeter of the site, as well as within. Two detention basins are present on the eastern portion of the property, which are separated by approximately three feet of fill, and connected by a concrete culvert built within the fill.

Historical Aerial Photograph Review

We reviewed aerial photographs available from 1949 through 2022. Review of an aerial photograph from 1949 shows the site to be primarily used for agricultural purposes, with the exception of the southern portion of the site where single-family residential structures are present, which remains similar through 1968. In 1982, the development of two detention basins is evident in the easternmost portion of the site, as well as the construction of an additional structure in the southeast corner of the site. In 2005, the development of the Williams Communication Parcel is evident in the northeastern corner of the site, and the eastern side of the site was no longer in use for agriculture. Aerial photographs reviewed up through 2022 indicates the site has remained essentially unchanged since at least 2005.

Site Geology

The site is located in the northern portion of the Great Valley geomorphic province of California in the northern portion of the San Joaquin Valley. The Great Valley of California is generally considered to be an elongated sedimentary trough, approximately 450 miles long and 50 miles wide. Rock units within the Great Valley geomorphic province consist of Mesozoic to Cenozoic marine and non-marine sedimentary rocks. These sediments have been folded into an asymmetric syncline, the axis of which lies immediately east of the interior Coast Ranges. The sedimentary units on the east side of the Great Valley are minimally deformed and are deposited on basement rocks of the Sierra Nevada geomorphic province. The sedimentary rocks on the west side of the Great Valley are deformed at dip at moderate angles to the east according to Norris and Webb's book Geology of California, 2nd edition.

According to the Geologic Map of the Midway and Tracy Quadrangles, Alameda and San Joaquin Counties, California, 1:24,000: Dibblee Geological Foundation, Dibblee Foundation Map DF-243, Holocene-aged Alluvium (Qa) underlies the site. These sediments each consist primarily of alluvial gravels, sands, and interbedded clays.

Soil Conditions

We reviewed published USDA soil maps relevant to the project site, which indicated that the site is dominated by Capay clay, defined as a highly-plastic, clayey alluvium derived from sedimentary rock. These soils have slopes ranging from 0 to 1 percent. The typical soil profile for a Capay clay consists of clay soils from surface down to a depth of 60 inches. The soil is classified as moderately well drained and with a runoff class of high. Capay clays are categorized in hydrologic soil group C, representing soils with slow infiltration rates.

The soil conditions described by the soil map are consistent with the mapped geology.

Groundwater

We reviewed available groundwater information at the California Department of Water Resources (DWR) website. The DWR periodically monitors groundwater levels in wells across the state. Their website shows a well located on the southern portion of the site. The well is identified as Well No. 377188N1215108W001 with a ground surface elevation of about +185 feet (NAVD 88), which is similar to the project site. Groundwater data for this well was recorded from March 5, 1959 to at least March 15, 1990. Reasonable data shows the highest recorded groundwater elevation was about +104 feet (NAVD 88) at the well (about 81 feet below the ground surface at the well location) on June 1, 1983. The lowest recorded groundwater elevation was about -50 feet (NAVD 88) at the well (about 235 feet below the ground surface at the well location) on October 8, 1970.

Based on the available groundwater data, regional groundwater beneath the site is generally present at a depth greater than 50 feet below the existing ground surface. However, perched groundwater will likely be encountered in the upper 10 feet of the existing ground surface due to the impermeable nature of the near-surface soils anticipated at the site. Groundwater levels at the site should be expected to fluctuate throughout the year based on variations in seasonal precipitation, local pumping, and other factors.

CONCLUSIONS AND PRELIMINARY RECOMMENDATIONS

Building Support

In our opinion, the undisturbed native soils are capable of supporting the anticipated improvements within the development provided the soils are prepared, placed, and compacted in accordance with typical geotechnical recommendations for similar projects. Engineered fill

that is properly placed and compacted during earthwork also would be suitable to support the proposed structures and surface pavements. Adequate clearing of existing buildings and vegetation, and backfilling of the resulting depressions, if any, will be essential for uniform support of new structures.

Seismic Hazards

No active or potentially active faults are known to underlie the site based on the published geologic maps or aerial photographs that we reviewed. The site is not located within an Alquist-Priolo Earthquake Fault Study Zone, and we observed no surface evidence of faulting during our site reconnaissance. Therefore, it is our opinion that ground rupture at the site resulting from seismic activity is unlikely. The site is not located within a seismic hazard zone pursuant to the Seismic Hazard Zone Mapping Act.

In our opinion, structures designed to meet the requirements of the California Building Code will be capable of withstanding potential seismic shaking that may occur.

Liquefaction Potential

Liquefaction is a soil strength and stiffness loss phenomenon that typically occurs in loose, saturated cohesionless soils as a result of strong ground shaking during earthquakes. The potential for liquefaction at a site is usually determined based on the results of a subsurface geotechnical investigation and the groundwater conditions beneath the site. Hazards to buildings associated with liquefaction include bearing capacity failure, lateral spreading, and differential settlement of soils below foundations, which can contribute to structural damage or collapse.

Based upon the results of our subsurface exploration, the known site geologic, seismologic, groundwater and soil conditions, it is our opinion that the potential for liquefaction occurring at this site is relatively low.

Excavation Conditions

The soils at the site are anticipated to be excavatable with conventional earthwork and trenching equipment. Standard size backhoes and excavators should be suitable to excavate foundation and shallow utility trenches at this site. Previous site improvements (i.e., foundations, slabs, etc.) may be encountered during construction and larger equipment may be required to remove existing below-grade structures at the site from existing developments.

Foundation excavations and the upper five feet of utility trenches should stand at near vertical inclinations, unless saturated soil conditions are encountered. In addition, clean, cohesionless soils may be susceptible to sloughing and caving if they are left to dry. Utility trench excavations deeper than five feet should be sloped or braced to conform to current Occupational Safety and Health Administration (OSHA) requirements.

Excavated materials should not be stockpiled directly adjacent to an open excavation to prevent surcharge loading of the excavation sidewalls. Excessive truck and equipment traffic should be avoided near excavations. If material is stored or heavy equipment is stationed and/or operated near an excavation, a shoring system must be designed to resist the additional pressure due to the superimposed loads.

Soil Expansion Potential

Due to the anticipated clay soils present throughout the site, laboratory testing should be performed on near-surface subgrade soils during design level geotechnical exploration and testing to further evaluate the impact of potentially expansive soils that may be encountered at the site.

Based on our experience with similar soil conditions in the area, at least 12 inches of imported, compactable, non- to very low-expansive (Expansion Index < 20) soils will be required beneath interior and exterior concrete slabs-on-grade, including sidewalks. Chemical amendment of the clay soils (i.e., lime-treatment) could be considered to reduce the expansion potential of the on-site clays.

Lime Treatment

Our experience in the vicinity of the site suggests that lime treatment of the clay soils can result in a substantial improvement to the support characteristics of the clay soils, reduce the expansion potential of the near-surface soils, and reduce the thickness of the required aggregate base material for pavement sections. The performance of chemically stabilized soils is dependent on uniform mixing of the quicklime into the subgrade soils and providing a proper curing period following compaction. An experienced soil stabilization contractor, combined with a comprehensive quality control program, is essential to achieve the best results with lime stabilized soils.

Material Suitability for Engineered Fill Construction

The native soils are considered suitable for use as engineered fill, provided they do not contain significant vegetation, debris or rubble, and are at appropriate moisture contents to allow for proper compaction. However, mitigation of expansive near-surface clay soils may be required at the site depending on final site grades and the exposed soil conditions.

Groundwater and Seasonal Moisture

Our review of available groundwater information from within the vicinity of the site, indicates that the static groundwater table should not adversely affect design or construction of the proposed warehouse development. Although the static groundwater table should not impact future development, perched water above relatively impermeable soil layers should be anticipated. The chances of encountering perched water are greater during and shortly after the rainy season. Seepage in utility excavations (if encountered) could probably be removed from utility excavations by pumps without major dewatering efforts.

Infiltrating surface run-off water from seasonal moisture during the winter and spring months may create saturated surface soil conditions due to the impervious nature of the underlying cemented soils. It is probable that grading operations attempted following the onset of winter rains and prior to prolonged drying periods will be hampered by high soil moisture contents. Such soils, intended for use as engineered fill, will require a prolonged period of dry weather and/or considerable aeration to reach a moisture content suitable to achieve proper compaction.

Earthwork Considerations

Future geotechnical engineering investigations should be performed to develop site-specific grading recommendations.

Site clearing would include removal of surface and subsurface structures that may remain on-site, as well as the removal of deleterious debris and surface organics. Tree removal generally includes the entire rootball and all roots larger than ½-inch in diameter. Excavations and depressions resulting from the removal of these items must be backfilled with engineered fill.

Removal of surface organics would depend on the condition and quantity of the organics at the time grading is to begin. Discing of the organics may be suitable for construction, if the organic concentrations are not too heavy at the time of grading. Stripping of the organics likely would be required if organic concentrations are very thick, with strippings being completely removed from the site or used only in landscape areas.

Areas designated to receive fill and at-grade areas are typically scarified to depths of about six to 12 inches, thoroughly moisture conditioned to above optimum moisture contents, and uniformly compacted. This method will help mitigate for expansive soils, if any. Standard fill construction and compaction procedures, including uniform moisture conditioning, placement of fill in thin lifts and uniformly compacted to at least 90 to 95 percent of the maximum dry density, would likely be suitable for support of structures.

Typically only native clay soils (in lieu of select sand backfill) are recommended for use as backfill for utility trenches located within building footprints and extend at least five feet beyond the perimeter foundation to minimize water transmission beneath the proposed buildings. Utility trench backfill is generally thoroughly moisture conditioned and mechanically compacted.

Due to the potential expansion characteristics of the native clay soils, the upper 12 inches of the final subgrade below the building footprints and at-grade structures, including exterior flatwork, may either be chemically amended or replaced with imported non-expansive engineered fill.

Building Foundations

Relatively shallow conventional continuous and isolated footings are anticipated to be suitable for structures with loads typical of structures of this type. Foundation depths are typically 18 to 24 inches for similar structures, depending on design. We anticipate bearing capacities on the order of 2000 to 4000 pounds per square foot (psf) for dead plus live loads will be applicable to structures supported on undisturbed native materials and/or properly placed and compacted engineered fill.

Interior Floor Slab Support

Interior slab-on-grade concrete floors would be suitable for this project provided the slabs are properly designed and constructed with regard to moisture penetration resistance and the slabs are adequately reinforced. Typical slab reinforcement for slabs constructed on non-expansive soils would consist of chaired reinforcing steel bars placed near mid-depth of the slab. A typical capillary break (at least four inches of free-draining crushed rock) and a moisture vapor retarder membrane (at least 10-mils thick meeting the minimum specifications for water vapor retarders as defined by ASTM E1745 standards) with an optional sand/pea gravel layer should underlie interior slabs-on-grade.

The slab designer should determine and detail the final floor slab thickness, concrete strength, reinforcing requirements (if necessary), control joints, and construction sequencing to support the anticipated floor loads and to resist stresses exerted from drying shrinkage of the concrete

and thermal variations within the facility. Floor loads exerted by equipment, fork lifts, or other vehicles associated with the industrial facility, as well as storage racks, stored product, etc., should be considered in the design of the interior floor slabs.

Floor slab areas that will be subjected to any vehicle/forklift traffic, as well as floor slab areas to support palletized construction materials, cranes and/or any other relatively heavy construction equipment or machinery, should be supported by Class 2 aggregate base to provide increased support capacity. The aggregate base will likely be placed over 12 inches of low- to very low-expansion potential imported soil, or lime treated soil.

Pavement Design

Based on our experience in the area with similar soil conditions, an R-value of five is considered appropriate for pavement design of untreated subgrades. Higher R-values may be obtained at the site, but will require site-specific R-value testing of the anticipated pavement subgrade soils. For planning purposes, an R-value of five is considered appropriate

If the clay soils are lime-treated to a depth sufficient to produce a compacted lime-treated layer 12 inches thick, an R-value of 50 is considered suitable for design of pavements. The exact amount of lime required to treat the subgrade will require additional laboratory testing and analysis. In our experience, four to five pounds per square foot of treated area is appropriate for similar soil conditions to achieve an R-value of 50. The procedures used for flexible pavement design are in general conformance with Chapters 600 to 670 of the California Highway Design manual, dated May of 2012.

The project civil engineer should determine the appropriate traffic index (TI) based on anticipated traffic conditions. Pavement design alternatives for different TIs can be provided in a site-specific geotechnical report.

Table 1: Pavement Design Alternatives

Traffic Index (TI)	Pavement Use	Untreated Subgrades R-value = 5			Lime-Treated Subgrades Soils (a) R-value = 50		
		Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)	Portland Cement Concrete (inches)	Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)	Portland Cement Concrete (inches)
4.5	Light Automobile Parking Only	2½*	10	--	2½*	4	--
		--	6	4	--	4	4

Traffic Index (TI)	Pavement Use	Untreated Subgrades R-value = 5			Lime-Treated Subgrades Soils (a) R-value = 50		
		Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)	Portland Cement Concrete (inches)	Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)	Portland Cement Concrete (inches)
6.0	Automobile, Light 2- to 3-axle Truck Traffic, Fire Lanes and Trash Enclosures	3	14	--	2½	6	--
		3½*	13	--	3½*	4	--
		--	6	6	--	4	5
7.0	Low 5-axle-Truck Traffic (AADTT ≈ 9)	3	18	--	3	7	--
		4*	16	--	4*	5	--
		--	6	6	--	4	5
8.0	Low to Moderate 5-axle-Truck Traffic (AADTT ≈ 28)	4	20	--	4	7	--
		5	18	--	5*	5	--
		--	6	7.5	--	4	5½
9.0	Moderate 5-axle-Truck Traffic (AADTT ≈ 70)	4	23	--	4	9	--
		5½*	21	--	5½*	7	--
		--	8	8	--	4	6

* = Asphalt concrete thickness contains the Caltrans safety factor.
(a) = Lime-treated subgrade should be at least 12 inches thick and possess a minimum R-value of 50 when testing in accordance with California Test 301.
AADTT = Annual Average Daily Truck Traffic, assuming 5-axles trucks and 20-year ESAL Constant.

Site Drainage

Performance of the building foundations, slab-on-grade floor and exterior flatwork is dependent upon proper control of surface water at the site. Site drainage should be accomplished to provide positive drainage of surface water away from buildings and prevent ponding of water adjacent to foundations. The grades adjacent to structures should be sloped away from foundations at a minimum two percent. We suggest consideration be given to connecting all roof downspouts to solid drainage pipes that convey water away from buildings to available drainage features or discharging downspouts onto concrete or asphalt surfaces that slope away from structures.

Future Geotechnical Engineering Studies

Prior to final design and the commencement of site grading, a detailed geotechnical investigation of this property must be conducted that includes subsurface exploration with soil sampling, laboratory testing and engineering evaluation. The final report should present geotechnical engineering conclusions and specific recommendations regarding site preparation, foundation alternates, floor support, site drainage and pavement design. When the project reaches this stage of development, we would be pleased to provide a separate cost estimate for these services.

LIMITATIONS

The proceeding sections of this report should be considered a general overview of the geotechnical engineering aspects of site development. Our recommendations are based upon the information provided regarding the proposed project, combined with our analysis of site conditions revealed by the preliminary field exploration. We have used our engineering judgment based upon the information provided and the data generated from our investigation. This report has been prepared in substantial compliance with generally accepted geotechnical engineering practices that exist in the area of the project at the time the report was prepared. No warranty, either express or implied, is provided.
We appreciate this opportunity to be of service. Please contact our office if you have any questions regarding this report or the geotechnical aspects of site development.

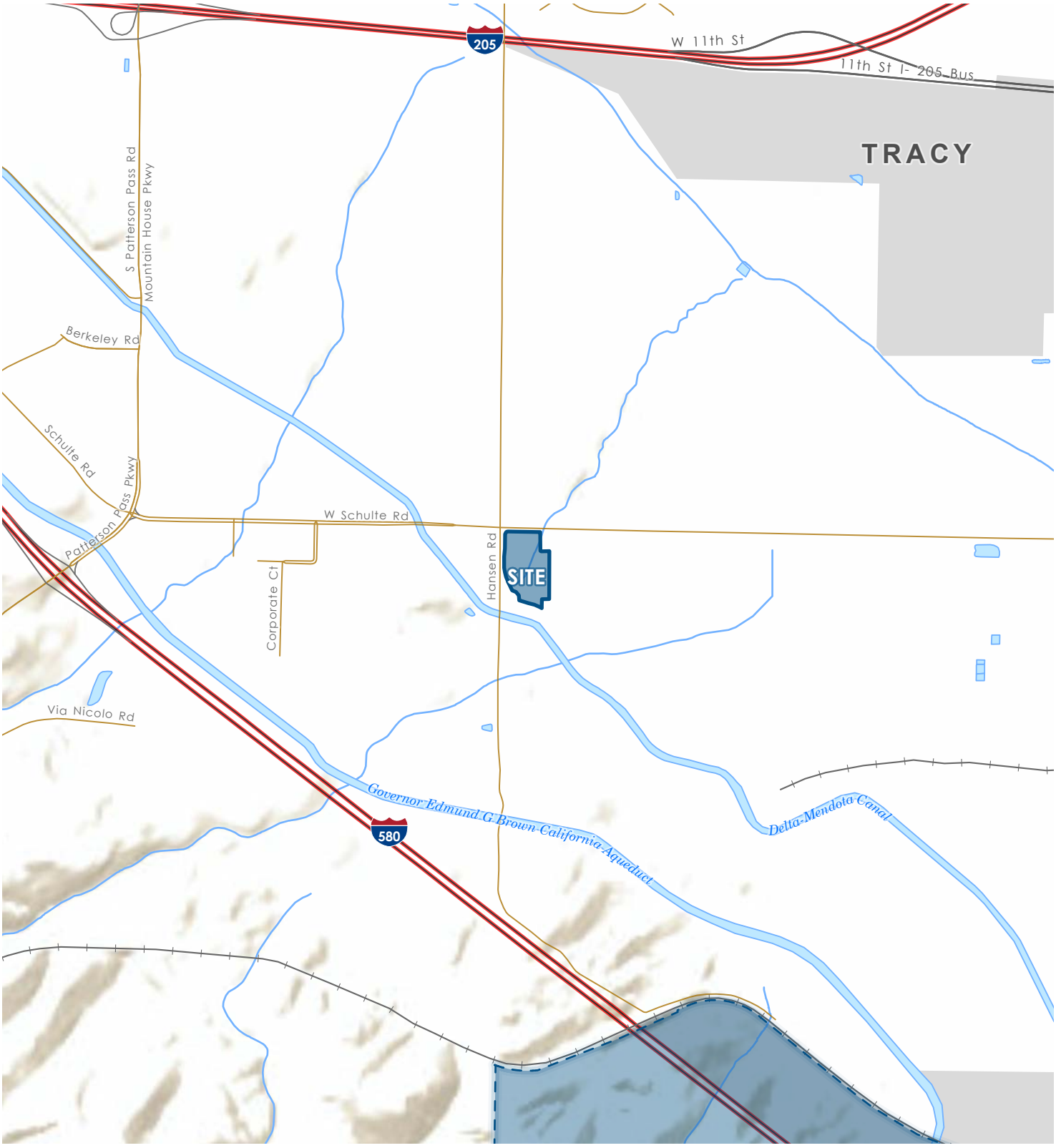
Wallace – Kuhl & Associates

Lauren A. Herbert
Staff Engineer

Matthew S. Moyneur
Senior Engineer

LAH:MSM:/lah

FIGURES



Spatial Data provided by Esri, NOAA, and USGS.
Projection: NAD 1983 2011 StatePlane California III FIPS 0403 Ft US

WallaceKuhl & Associates — A Universal Engineering Sciences Company

VICINITY MAP

WEST SCHULTE ROAD WAREHOUSE PROJECT

San Joaquin County, California

FIGURE	1
DRAWN BY	RWO
CHECKED BY	LAH
PROJECT MGR	MSM
DATE	1/2022

WKA No. 13393.02

Approximate Site Boundary

N

0 100 200

Feet

Aerial imagery provided by Esri.
Site Plan adapted from a drawing provided by Siegfried, dated 08/12/2021.
Projection: NAD 1983 2011 StatePlane California III FIPS 0403 Ft US

WallaceKuhl & ASSOCIATES — A Universal Engineering Sciences Company

SITE PLAN

WEST SCHULTE ROAD WAREHOUSE PROJECT

San Joaquin County, California

FIGURE	2
DRAWN BY	RWO
CHECKED BY	LAH
PROJECT MGR	MSM
DATE	1/2022

WKA No. 13393.02

APPENDIX E

Phase I Environmental Site Assessment

PHASE I ENVIRONMENTAL SITE ASSESSMENT
OF

WEST SCHULTE ROAD – 18.66 ACRES
16286 WEST SCHULTE ROAD
TRACY, CALIFORNIA 95377

ATC PROJECT NO. NPPAN20063

NOVEMBER 4, 2020

Prepared by:

ATC Group Services LLC
1117 Lone Palm Avenue, Suite 201
Modesto, California 95351
Phone: (209) 579-2221
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Prepared for:

Panattoni Development Company, Inc.
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1.0 EXECUTIVE SUMMARY

1.1 Findings and Conclusion Summary

At the request of Panattoni Development Company, Inc. (Panattoni), ATC Group Services LLC (ATC) performed a Phase I Environmental Site Assessment (ESA) of the West Schulte Road - 18.66 Acres property (herein referred to as the property). The property is located at 16286 West Schulte Road in Tracy, California in an area that is primarily characterized by industrial and agricultural properties.

ATC has performed this Phase I ESA of the property in conformance with the scope and limitations of ASTM International (ASTM) Standard Practice E1527-13. Any exceptions to, or deletions from, this practice are described in Section 2.0 of this report. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the property. The following provides a summary of report findings and conclusions.

The property consists of one parcel totaling approximately 18.66 acres of agricultural and residential land. According to information obtained from the San Joaquin County Assessor's Website, the property is identified as Assessor's Parcel Number (APN) 209-230-250-000 and is identified as being located within Section 35, Township 2 South, Range 4 East of the Mount Diablo Base and Meridian, San Joaquin County, California. The property is located at Latitude 37°43'11" N and Longitude 121°30'42" W.

ATC observed areas of non-hazardous trash/debris throughout the central area of the property near the residences and farm structures. Hazardous materials or hazardous wastes were not observed other than a number of motor vehicles in various conditions. No odors or surface staining were observed, though surface observations were hampered by tall grass. The observed trash/debris on the property and the small quantities of potential motor vehicle-related spills or leaks are considered to represent a *de minimis* condition to the property.

ATC observed two water wells near the center of the property, with two associated aboveground water storage tanks. The Environmental Data Resources, Inc. (EDR) Radius Report includes records for the two wells on the property with depths of 305 and 265 feet, respectively.

During the site reconnaissance and subsequent interview, ATC identified four (4) septic systems near the residences. Though the age of the systems is unknown, the tenant confirmed that the septic systems were present when he first occupied the property more than 40 years ago. The presence of septic systems for residential use at the property are not considered to represent a *recognized environmental condition* to the property.

1.2 Recommendations

Based on information collected from the Phase I ESA, ATC offers the following recommendations:

- The septic systems uncovered during redevelopment should be removed appropriately.
- Prior to development activities, the observed debris/miscellaneous nonhazardous solid waste should be disposed appropriately offsite.
- A hazardous building materials survey should be completed by a licensed professional on existing site structures (Buildings 1 and 2), the dilapidated structure (Building 3), associated out buildings, and any building material debris prior to demolition activities.

- The two (2) water wells should be removed by a licensed well driller in accordance with State and County regulations. Any related subsurface piping uncovered during redevelopment should be removed appropriately.

1.3 Significant Data Gap Summary

Data gaps may have been encountered during the performance of this Phase I ESA and are discussed within the section of the report where they were encountered. However, according to ASTM Standard Practice E1527-13, data gaps are only significant if "other information and/or professional experience raise reasonable concerns involving the data gap." No significant data gaps were identified during the course of this assessment.

1.4 General Information / Signatures of Professionals

Project Information:
West Schulte Road – 18.66 Acres
ATC Project No.: NPPAN20063

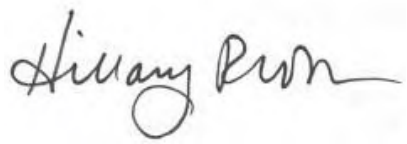
Consultant Information:
ATC Group Services LLC (ATC)
1117 Lone Palm Avenue
Suite 201
Modesto, California 95351
Telephone: (209) 579-2221
Fax: (209) 579-2225
Reconnaissance Date: October 14 and 19, 2020
Site Assessor: Jim Kundert
Senior Reviewer: Jeanne Homsey
Environmental Professionals: Jeanne Homsey, Hillary Williams

Site Information:
West Schulte Road – 18.66 Acres
16286 West Schulte Road
Tracy, California 95377
San Joaquin County

Site Access Contact:
Ms. Abbie Wertheim
Development Manager
Panattoni Development Company, Inc.

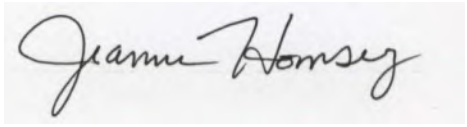
Client Information:
Panattoni Development Company, Inc.
7887 East Belleview Avenue
Suite 475
Denver, Colorado 80111

Environmental Professional Statement:
We declare that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in § 312.10 part of 40 CFR 312. We have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

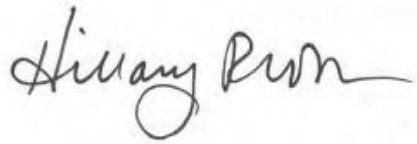


Hillary Williams on behalf of:

Jim Kundert, Staff Geologist
Site Assessor



Jeanne Homsey, PE, Branch Manager
Environmental Professional, Senior Reviewer



Hillary R. Williams, National Client Manager
Environmental Professional, Project Reviewer

2.0 INTRODUCTION

2.1 Purpose

The purpose of this Phase I ESA was to identify *recognized environmental conditions* in connection with the property at the time of the site reconnaissance. The scope of work for this Phase I ESA may also include certain potential environmental conditions beyond the scope of ASTM Standard Practice E1527-13 as listed below. This report documents the findings, opinions and conclusions of the Phase I ESA.

2.2 Scope

This Phase I ESA was conducted in general accordance with the ASTM Standard Practice E1527-13, consistent with a level of care and skill ordinarily practiced by the environmental consulting profession currently providing similar services under similar circumstances. Significant additions, deletions or exceptions to ASTM Standard Practice E1527-13 are noted below or in the corresponding sections of this report. The scope of this assessment included an evaluation of the following:

- Physical setting characteristics of the property through a review of referenced sources such as topographic maps and geologic, soils and hydrologic reports.

- Usage of the property, adjoining properties and surrounding area through a review of referenced historical sources such as land title records, fire insurance maps, city directories, aerial photographs, prior reports and interviews.

- Observations and interviews regarding current property usage and conditions including: the use, treatment, storage, disposal or generation of hazardous substances, petroleum products, hazardous wastes, nonhazardous solid wastes and wastewater.

- Usage of adjoining and surrounding area properties and the likely impact of known or suspected releases of hazardous substances or petroleum products from those properties in, on or at the property.

- Information in referenced environmental agency databases and local environmental records, within the specified approximate minimum search distance from the property.

- Potential for subsurface vapor migration in, on or at the property as described in Section 7.0.

The scope of the assessment also included consideration of the following potential environmental issues or conditions that are beyond the scope of ASTM Standard Practice E1527-13:

- Visual observation of suspect asbestos-containing materials (ACM), consisting of providing an opinion on the condition of suspect ACM on the property based upon visual observation during the site reconnaissance. No sampling of suspect ACM was conducted.

- Visual observation of Lead-based paint (LBP), consisting of providing an opinion on the potential for suspect LBP based on the construction date of buildings on the property and visual observation of the condition of suspect LBP.

- A Tier 1 Vapor Encroachment Screen (VES) in general accordance with ASTM Standard Practice E 2600-15: *Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*.

- Regulatory Agency File and Records Review, consisting of conducting a file review (i.e., via Freedom of Information Act (FOIA) request or alternative method/source) for the property and/or one adjoining property at one regulatory agency, as warranted by the findings of the ESA.

2.3 Significant Assumption

The assumptions in this report were not considered as having significant impact on the determination of *recognized environmental conditions* associated with the property.

2.4 Limitations and Exceptions

ATC has prepared this Phase I ESA report using reasonable efforts to identify *recognized environmental conditions* associated with hazardous substances or petroleum products in, on or at the property. Findings contained within this report are based on information collected from observations made on the day(s) of the site reconnaissance and from reasonably ascertainable information obtained from certain public agencies and other referenced sources.

The ASTM Standard Practice E1527-13 recognizes inherent limitations for Phase I ESAs, including, but not limited to:

- *Uncertainty Not Eliminated* – A Phase I ESA cannot completely eliminate uncertainty regarding the potential for *recognized environmental conditions* in connection with any property.

- *Not Exhaustive* – A Phase I ESA is not an exhaustive investigation of the property and environmental conditions on such property.

- *Past Uses of the Property* – Phase I requirements only require review of standard historical sources at five year intervals. Therefore, past uses of property at less than five year intervals may not be discovered.

Users of this report may refer to ASTM Standard Practice E1527-13 for further information regarding these and other limitations. This report is not definitive and should not be assumed to be a complete and/or specific definition of all conditions above or below grade. Current subsurface conditions may differ from the conditions determined by surface observations, interviews and reviews of historical sources. The most reliable method of evaluating subsurface conditions is through intrusive techniques, which are beyond the scope of this report. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, or other property construction purposes. Any use of this report by any party, beyond the scope and intent of the original parties, shall be at the sole risk and expense of such user.

ATC makes no representation or warranty that the past or current operations at the property are, or have been, in compliance with all applicable federal, state and local laws, regulations and codes. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Regardless of the findings stated in this report, ATC is not responsible for consequences or conditions arising from facts not fully disclosed to ATC during the assessment.

An independent data research company provided the government agency database referenced in this report. Information on surrounding area properties was requested for approximate minimum search distances and is assumed to be correct and complete unless obviously contradicted by ATC's observations or other credible referenced sources reviewed during the assessment. ATC shall not be liable for any such database firm's failure to make relevant files or documents properly available, to properly index files, or otherwise to fail to maintain or produce accurate or complete records.

ATC makes no warranty, guarantee or certification regarding the quality, accuracy or reliability of any prior report provided to ATC and discussed in this Phase I ESA report. ATC expressly disclaims any and all liability for any errors or omissions contained in any prior reports provided to ATC and discussed in this Phase I ESA report.

ATC used reasonable efforts to identify evidence of aboveground and underground storage tanks and ancillary equipment on the property during the assessment. "Reasonable efforts" were limited to observation of accessible areas, review of referenced public records and interviews. These reasonable efforts may not identify subsurface equipment or evidence hidden from view by things including, but not limited to, snow cover, paving, construction activities, stored materials and landscaping.

Any estimates of costs or quantities in this report are approximations for commercial real estate transaction due diligence purposes and are based on the findings, opinions and conclusions of this assessment, which are limited by the scope of the assessment, schedule demands, cost constraints, accessibility limitations and other factors associated with performing the Phase I ESA. Subsequent determinations of costs or quantities may vary from the estimates in this report. The estimated costs or quantities in this report are not intended to be used for financial disclosure related to the Financial Accounting Standards Board (FASB) Statement No. 143, FASB Interpretation No. 47, Sarbanes/Oxley Act or any United States Securities and Exchange Commission reporting obligations, and may not be used for such purposes in any form without the express written permission of ATC.

ATC is not a professional title insurance or land surveyor firm and makes no guarantee, express or implied, that any land title records acquired or reviewed in this report, or any physical descriptions or depictions of the property in this report, represent a comprehensive definition or precise delineation of property ownership or boundaries.

The Environmental Professional Statement in Section 1.1 of this report does not "certify" the findings contained in this report and is not a legal opinion of such *Environmental Professional*. The statement is intended to document ATC's opinion that an individual meeting the qualifications of an Environmental Professional was involved in the performance of the assessment and that the activities performed by, or under the supervision of, the *Environmental Professional* were performed in conformance with the standards and practices set forth in 40 CFR Part 312 per the methodology in ASTM Standard Practice E1527-13 and the scope of work for this assessment.

Per ASTM Standard Practice E1527-13, Section 6, User Responsibilities, the User of this assessment has specific obligations for performing tasks during this assessment that will help identify the possibility of *recognized environmental conditions* in connection with the property. Failure by the User to fully comply with the requirements may impact their ability to use this report to help qualify for *Landowner Liability Protections* (LLPs) under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). ATC makes no representations or warranties regarding a User's qualification for protection under any federal, state or local laws, rules or regulations.

In accordance with the ASTM Standard Practice E1527-13, this report is presumed to be valid for a six month period. If the report is older than six months, the following information must be updated in order for the report to be valid: (1) regulatory review, (2) site visit, (3) interviews, (4) specialized knowledge and (5) environmental liens search. Reports older than one year may not meet the ASTM Standard Practice E1527-13 and therefore, the entire report must be updated to reflect current conditions and property-specific information.

Other limitations and exceptions that are specific to the scope of this report may be found in corresponding sections.

2.5 Special Terms and Conditions (User Reliance)

This report is for the use and benefit of, and may be relied upon by, Panattoni Development Company, Inc., and any of its affiliates and their respective successors and assigns, in connection with a commercial real estate transaction involving the property. No third party is authorized to use this report for any purpose. Any use by or distribution of this report to third parties, without the express written consent of ATC, is at the sole risk and expense of such third party.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

The property is located at 16286 West Schulte Road in Tracy, San Joaquin County, California 95377. The Site Vicinity Map is located in Appendix A. The Site Plan is located in Appendix B. Site Photographs are provided in Appendix C. According to information obtained from the San Joaquin County Assessor's Office website, the property consists of one parcel identified as Assessor Parcel Number (APN) 209-230-250-000.

According to information obtained from the San Joaquin County Assessor's Office, the property is identified as being located within Section 35, Township 2 South, Range 4 East of the Mount Diablo Base and Meridian, San Joaquin County, California. The property is located at Latitude 37°43'11" N and Longitude 121°30'42" W. The property is currently zoned as Agricultural (AG-40).

3.2 Surrounding Area General Characteristics

The property is located within San Joaquin County in an area characterized by agricultural and industrial uses. Surface topography across the property and in the surrounding area is sloping to the northeast. Specific adjacent properties are summarized in Section 3.5.

3.3 Current Use of the Property

The property is comprised of one parcel of agricultural land totaling approximately 18.66 acres. Four residences and six buildings used for livestock, processing, and storage are present, in addition to several small sheds and animal shelters. Two connected ponds, dry at the time of the site visit, are present along the central eastern edge of the property.

3.4 Description of Property Improvements

The following table provides general descriptions of the property improvements.

PROPERTY IMPROVEMENTS	
Size of Property (approximate)	18.66 acres
General Topography of Property	The property slopes to the northeast.
Adjoining and/or Access/Egress Roads	The property is accessed by Schulte Road to the north.
Paved or Concrete Areas (including parking)	None; Access road and driveways are gravel surface
Unimproved Areas	Northwest portion of Property is unimproved pasture
Landscaped Areas	Around residences
Surface Water	None
Potable Water Source	Two privately owned water wells service the property
Sanitary Sewer Utility	None; Septic systems are in use on the property
Storm Sewer Utility	None
Electrical Utility	Pacific Gas & Electric (PG&E) services the property
Natural Gas Utility	None; propane tanks present
Current Occupancy Status	50% - Two of the four residences are occupied
Unoccupied Buildings/Spaces/Structures	50% - Two residences are unoccupied due to structural damage
Number of Occupied Buildings	Two residences; the storage, process, and livestock buildings are in use.
Building Name or General Building Description	Farm
Number of Floors	All buildings are single story
Total Square Feet of Space (approximate)	6,550 Residential, 19,800 Agricultural/Farm
Construction Completion Date (year)	Various, beginning prior to 1937

PROPERTY IMPROVEMENTS	
Construction Type	Various, including slab on grade, floorless pile foundation, and wall/crawlspace foundation, supporting wood frame and concrete block structures.
Interior Finishes Description	Various, including painted drywall, unpainted wood/metal, and unpainted concrete block
Exterior Finishes Description	Various, including painted stucco, unpainted wood, unpainted sheet metal, and painted and unpainted concrete block
Cooling System Type	Electrical HVAC in some residences
Heating System Type	Natural gas (propane tanks) in some residences
Emergency Power	Portable generators

3.5 Current Uses of Adjoining Properties

Current uses of the adjoining properties were observed to be as follows:

Direction from Property	Address	Occupant(s) Name	Current Use	Potential Environmental Conditions
North and Northeast (beyond West Schulte Road)	5849 West Schulte Road	SourceSelect, Inc.	Industrial Facility (Warehouse)	Aboveground storage tanks, listed in state agency databases.
East	No address	Unknown	Agricultural land	None
West (beyond Hansen Road)	16502 West Schulte Road	Cal Fire Station 26	Fire Station	None
South (beyond Delta-Mendota Canal)	26301 South Hansen Road	SBS Farms	Agricultural land	None

The adjoining property identified in the regulatory database listings is further discussed in Section 5.1.2.

4.0 USER PROVIDED INFORMATION

The following section summarizes information (if any) provided by Panattoni Development Company, Inc. (User) with regard to the Phase I ESA. Documentation may be found in Appendix D or where referenced in this report.

4.1 Title Records

The User provided no information regarding title records

4.2 Environmental Liens or Activity and Use Limitations (AULs)

The User provided no information regarding property environmental liens or activity and use limitations (AULs). ATC contracted Environmental Data Resources, Inc. (EDR) to perform an environmental lien and AUL search for the property. According to EDR, no environmental liens or AULs were identified for the property.

A copy of the report is included in Appendix L. The review of the environmental lien and AUL search did not identify past uses indicating *recognized environmental conditions* in connection with the property.

4.3 Specialized Knowledge or Experience of the User

The User provided no specialized knowledge regarding *recognized environmental conditions* associated with the property.

4.4 Significant Valuation Reduction for Environmental Issues

The User provided no information regarding a significant valuation reduction for environmental issues associated with the property

4.5 Owner, Property Manager and Occupant Information

The User identified Ms. Abbie Wertheim, Development Manager, with Panattoni Development Company, as the site contact for the property.

4.6 Reason for Performing Phase I ESA

According to information provided by the User, this Phase I ESA will be used in connection with a commercial real estate transaction to identify *recognized environmental conditions* associated with the property.

4.7 Other User Provided Documents

Per the ASTM Standard Practice E1527-13 ATC obtained the documents listed below from User. Further discussion may be found in relevant sections of this report.

OTHER USER PROVIDED DOCUMENTS		
Title	**Date (if known)**	**Author and/or Source (if known)**
Client Questionnaire	October 8, 2020	Panattoni Development Company, Inc.

5.0 RECORDS REVIEW

5.1 Standard Environmental Records

The regulatory agency database report discussed in this section, provided by EDR of Shelton, Connecticut was reviewed for information regarding reported use or release of hazardous substances and petroleum products on or near the property. Unless otherwise noted, the information provided by the regulatory agency database report and other sources referenced in this report, were considered sufficient for *recognized environmental condition (REC)*, *controlled recognized environmental condition (CREC)*, *historical recognized environmental condition (HREC)* or *de minimis condition* determinations without conducting supplemental agency file reviews. ATC also reviewed the "unmappable" (also referred to as "orphan") listings within the database report, cross-referencing available address information and facility names. Unmappable sites are listings that could not be plotted with confidence, but are potentially in the general area of the property, based on the partial street address, city, or zip code. Any unmappable site that was identified by ATC as being within the approximate minimum search distance from the property, based on the site reconnaissance and/or cross-referencing to mapped listings, is included in the discussion within this section. The complete regulatory agency database report may be found in Appendix E.

The following is a summary of the findings of the database review.

SUMMARY OF FEDERAL, STATE AND TRIBAL DATABASE FINDINGS			
Regulatory Database	**Approx. Minimum Search Distance**	**Property Listed?**	**# Sites Listed**
Federal National Priority List (NPL)	1 mile	No	0
Federal Delisted NPL	½ mile	No	0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list (SEMS)	½ mile	No	0
Superfund Enterprise Management System Archive (SEMS-ARCHIVE)	½ mile	No	0
Federal Resource Conservation and Recovery Act (RCRA), Corrective Action facilities (CORRACTS)	1 mile	No	0
Federal RCRIS non- CORRACTS Treatment, Storage, and Disposal Facilities (TSD)	½ mile	No	0
Federal RCRA Generators	Property & Adjoining	No	1
Federal Institutional Control/Engineering Control Registry	Property	No	0
Federal Emergency Response Notification System (ERNS) list	Property	No	0
State and Tribal NPL	1 mile	No	0
State and Tribal CERCLIS	½ mile	No	0
State and Tribal Landfill or Solid Waste Disposal Sites	½ mile	No	0
State and Tribal Leaking Underground Storage Tanks (LUST)	¼ mile	No	0
State and Tribal Registered Underground Storage Tanks (UST) / Aboveground Storage Tank (AST)	Property & Adjoining	No	1
State and Tribal Institutional Control/Engineering Control Registry	Property	No	0
State and Tribal Voluntary Cleanup Site	½ mile	No	0
State and Tribal Brownfield Sites	½ mile	No	0
EDR Historical Drycleaners	¼ mile	No	0
EDR Historical Auto Stations	¼ mile	No	0
EDR Manufactured Gas Plants (MGP)	1 mile	No	0

5.1.1 Federal Agency Database Findings

The property was not identified in the federal agency database listings.

The following listings with a known or significant potential for release and impact in, on, or at the property were identified in the federal agency databases searched:

Shell Pipeline Co LP Location No. 805248 Drum Location
W. Schulte and Hansen
Tracy, CA 95377
Databases: RCRA SQG
Approximate Distance from the Site: 500 feet to the west
Assumed Groundwater Gradient: Cross-gradient
Regulatory Summary: This facility is listed in the RCRA-SQG (Small Quantity Generator) database. The following wastes were listed for this facility: ignitable waste, and benzene. The waste codes listed for this facility are the following: D001 (ignitable hazardous waste) and 018 (benzene). No violations and/or releases have been reported for this facility.
Discussion: Based on the crossgradient component of the assumed groundwater gradient and lack of reported violations, this facility is not considered to represent a *recognized environmental condition* for the property.

No other nearby or surrounding sites were identified in the ASTM-specified search radii for the federal agency database searched.

5.1.2 State and Tribal Database Findings

The property was not listed on the state or tribal agency databases searched.

The following listings with a known or significant potential for release and impact in, on, or at the property were identified in the state or tribal agency databases searched:

UPS Supply Chain Solutions - CATAC
5849 West Schulte Road
Tracy, CA 95377
Databases: CERS TANKS
Approximate Distance to the Site: Adjoins the property to the north and northeast, beyond West Schulte Road
Assumed Groundwater Gradient: Down-gradient
Regulatory Summary: This facility is registered with the County for having aboveground storage tanks (ASTs). The specific number, size, and contents are not listed. Violations listed are administrative; no leaks or spills are noted.
Discussion: Based on the current regulatory status, the lack of reported releases, and down-gradient location relative to the property, this facility is not considered to represent a *recognized environmental condition* for the property.

Based on distance, topography, assumed groundwater gradient, current regulatory status, and/or the absence of reported releases, the other sites listed in the state and tribal agency databases searched are not considered to represent a likely past, present or material threat of release in, on, or at the property. Given the physical setting characteristics of the property and surrounding area, supplemental agency file reviews were not warranted to verify the database report information.

5.1.3 Local Environmental Records Sources

Local Health Department and Environmental Agency

ATC contacted the San Joaquin County Environmental Health Department (SJCEHD) regarding public records associated with USTs, individual septic disposal systems, or documented hazardous waste generation on file for the property. The County indicated that there were no reliably available records for the property due to ongoing scanning for developing and partly available online access. The available online records for the Property address were limited to a well permit. A record of communication and the well permit are provided in Appendix J.

Department of Toxic Substances Control

ATC examined the Department of Toxic Substances Control (DTSC) EnviroStor database (http://www.envirostor.dtsc.ca.gov/public). The DTSC has no records pertaining to the property.

Regional Water Quality Control Board

ATC examined the Regional Water Quality Control Board (RWQCB) GeoTracker database. According to the RWQCB GeoTracker database (http://geotracker.waterboards.ca.gov/), the RWQCB has no records pertaining to the property.

Electrical Utility Company

ATC confirmed that PG&E is the electricity company that provides electricity to the property vicinity.

Other Local Environmental Records Sources

No additional local environmental records sources were reviewed.

5.2 Physical Setting Sources

5.2.1 Topography

The property is located on the United States Geologic Survey (USGS) 7.5-Minute Series *Tracy, California*, topographic quadrangle, dated 2012. The maps show the property to be at an elevation of approximately 180 feet above mean sea level (msl). The topography in the vicinity of the property slopes to the northeast. A copy of the topographic map is included in Appendix A.

5.2.2 Geology

Tracy, California is located in the San Joaquin Valley, the southern extension of the California Great Central Valley. The Great Central Valley is a deep alluvial plain extending nearly 500 miles from the Siskiyou Range of the Cascade Mountains in the north to the Tehachapi Range to the south. At Tracy, the San Joaquin Valley is approximately 40 miles wide. The western Valley boundary consists of the low, rolling foothills of the California Coast Range Mountains (maximum elevation due west is less than 4,000 feet) and the eastern boundary consists of the more rugged foothills of the Sierra Nevada (maximum elevation due east is over 10,000 feet).

The Great Central Valley contains a thick sequence of sediment, which, in places, reaches a depth of 10 miles. These sediments range in geologic age from Jurassic (205 million years before present) to Recent (present time) and include both marine and continental deposits. The site's immediate subsurface geology consists of Pleistocene and Recent alluvial deposits. These alluvial deposits consist of heterogeneous

sequences of sand and gravel originating from active stream channels, and silt and clay originating from overbank and marsh depositional environments.

5.2.3 Soils

The United States Department of Agriculture (USDA) Soil Conservation Service Soil Survey of San Joaquin County, California, dated October 1992, classifies the surficial soils in the vicinity of the property as the Capay Clay map unit, which is characterized as moderately well drained, fine textured soils that are clayey, have a high water table, or are shallow to an impervious layer. This soil type appears to meet the definition of partially hydric soils and are listed on the USDA Natural Resources Conservation Service National Hydric Soils List.

5.2.4 Hydrology

No past groundwater investigations have been identified for the property, thus no site-specific groundwater information was available. Based on ATC's experience with other sites in the vicinity of the property and information contained on the California State Water Resources Control Board Geotracker website, the local groundwater flow direction is expected to be toward the northeast and the depth to the water table is anticipated to be in excess of 20 feet below the ground surface. Therefore, in assessing potential external environmental impact, properties located southwest of the property are of primary concern due to their inferred upgradient location. Estimated groundwater levels and/or flow directions may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or de-watering operations, and can more accurately be determined by the installation of groundwater monitoring wells.

Estimated groundwater levels and/or flow direction(s) may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations.

5.3 Historical Records Sources

The following table summarizes the findings of the research presented below pertaining to historical property and surrounding area uses.

HISTORICAL USE SUMMARY				
Period	**Identified Historical Uses**		**Source(s)**	**Intervals/Comments**
	Property	**Surrounding Area**		
Prior to 1940	Agricultural and Residential	Agricultural	Topographic Map Aerial Photograph	Earliest record identified was a topographic map dated 1907 depicting the property with a single residence. Interval gaps of greater than five years identified (1908-1915, 1917-1921, and 1923-1936). Property land use did not change across identified gaps; therefore, the identified interval gaps are not considered significant.
1940 - 1960	Agricultural and Residential	Agricultural	Aerial Photographs Topographic Map	Interval gaps of greater than five years identified (1944-1948 and 1958-1962). Property land use did not change across identified gaps; therefore, the identified interval gaps are not considered significant.
1961 - 1980	Agricultural and Residential	Agricultural	Aerial Photographs Topographic Maps City Directories	No interval gaps noted.

HISTORICAL USE SUMMARY				
Period	Identified Historical Uses		Source(s)	Intervals/Comments
	Property	Surrounding Area		
1981 - 2000	Agricultural and Residential	Agricultural Commercial/ Industrial	Aerial Photographs Topographic Maps City Directories	Interval gaps of greater than five years identified (1986-1991 and 1996-2005). Property land use did not change across identified gaps; therefore, the identified interval gaps are not considered significant.
2001 - present	Agricultural and Residential	Agricultural Commercial/ Industrial	Aerial Photographs Topographic Maps Tax Records City Directories Interview	No interval gaps noted.

5.3.1 Aerial Photographs

ATC reviewed available aerial photographs of the property and surrounding areas provided by EDR and the San Joaquin County Assessor's web site, dated 1937 to 2016. The following are descriptions and interpretations from the aerial photograph review.

AERIAL PHOTOGRAPH SUMMARY	
Year	Comments
1937, 1940	**Property**: The property is developed with three residences and two farm structures. The northern part of the property is depicted as row cropland. **Surrounding Area**: The surrounding area consists of agricultural land.
1949, 1957, 1963, 1968, 1975	**Property**: The property is developed with three residences and several farm structures. The northern part of the property is depicted as row cropland. **Surrounding Area**: The surrounding area consists of agricultural land. The Delta-Mendota Canal is depicted to the south.
1982	**Property**: The property is developed with three residences and several farm structures. Two ponds characteristic of dairy waste ponds are depicted on the central eastern edge of the property. The northern part of the property around the ponds appears to be cropland. **Surrounding Area**: The surrounding area consists of agricultural land. A residence and other structures are depicted along Hansen Road to the west. The Delta-Mendota Canal is depicted to the south.
1993	**Property**: The property is developed with four residences and several farm structures. Two ponds characteristic of dairy waste ponds are depicted on the central eastern edge of the property, though they are showing signs of reduced usage. The property access, previously from Hansen Road, has been cut off, and access now appears to be via West Schulte Road. **Surrounding Area**: The surrounding area consists generally of agricultural land. A residence is depicted along Hansen Road to the west. A warehouse/shipping facility is depicted to the southwest. The Delta-Mendota Canal is depicted to the south.
2006	**Property**: The property is developed with four residences and several farm structures. Two ponds characteristic of dairy waste ponds are depicted on the central eastern edge of the property, though they appear dry. **Surrounding Area**: The surrounding area consists generally of agricultural land. A telecommunications compound is to the northeast. The residence to the west has been replaced with a fire department facility. A warehouse/shipping facility is depicted to the southwest. The Delta-Mendota Canal is depicted to the south.
2009, 2012, 2016	**Property**: The property is developed with four residences and several farm structures. The dairy ponds appear to be dry. **Surrounding Area**: The surrounding area consists generally of agricultural land. A telecommunications compound is to the northeast. A fire department facility is depicted to the west. A warehouse/shipping facility is depicted to the southwest. The Delta-Mendota Canal is depicted to the south.

The property has been agricultural land since the 1930s. The historical use of the property as agricultural land indicates a potential that agricultural chemicals may have been applied at some time. On cultivated land where agricultural chemicals have been applied, it is not uncommon to find residual fertilizers, pesticides, herbicides or related compounds in the soil. Review of aerial photographs did not indicate the presence of bulk chemical storage or structures where chemicals may have been stored, herbicide/pesticide/fertilizer loading areas, or other indications of bulk product storage or handling areas on or near the property. During ATC's site and area reconnaissance and review of historical information, no evidence of concentrated chemical use was identified on or near the property. In general, except in storage or mixing areas where accumulation due to spillage may have occurred, the application of pesticides and herbicides for agricultural purposes does not usually require a remedial response by regulatory agencies. Therefore, the historical agricultural property use is not considered to represent a *recognized environmental condition* to the property.

The review of aerial photographs did not identify past uses indicating *recognized environmental conditions* at the property or the surrounding properties. Copies of reproducible aerial photographs are included in Appendix F.

5.3.2 Fire Insurance Maps

A search for fire insurance maps for the property and surrounding area was conducted by EDR. No such maps for the property were available. A copy of the EDR Sanborn Map report of no coverage is included in Appendix G.

5.3.3 Property Tax Files

ATC reviewed available tax files online from the San Joaquin County Assessor's Office internet database for historical ownership information on the property. The current owner of the property (APN) 209-230-25 is listed as D&D Pombo LLC from 2004 to present. The prior owners listed are David A. Pombo & Dello L Pombo prior to 2004. Ownership prior to this was not available for review. The review of tax files did not identify past uses indicating environmental concerns at the property. Documentation is included in Appendix G.

5.3.4 Recorded Land Title Records

The acquisition of recorded land title records was not required by the scope of work for the Phase I ESA.

5.3.5 Historical USGS Topographic Maps

ATC reviewed available historical USGS Topographic Maps, *Tesla, California* Quadrangle, dated 1907 and 1943; the USGS 15-Minute Series Topographic Maps, *Altamont, California* Quadrangle, dated 1942, and *Carbona, California* Quadrangle date 1922 and 1942; and the USGS 7.5-Minute Series Topographic Maps, *Tracy, California* Quadrangle, dated 1916, 1954, 1968, 1981, and 2012 *Midway, California* Quadrangle, dated 1916, 1953, 1968, 1980, and 2012, for information regarding past uses of the property.

The 1907, 1916, and 1942-1943 topographic maps depict the property and adjoining properties as agricultural or undeveloped land; scattered structures are depicted, including one of the property, suggesting agricultural use.

The 1922 map does not depict the property.

The 1953-1954 pair of topographic maps and the 1968 topographic maps depict the property and adjoining properties as agricultural or undeveloped land. The property is depicted with multiple structures. The Delta-Mendota Canal and what is now known as Highway 205 are also depicted for the first time on the 1953 map, and the California Aqueduct and Highway 580 are depicted for the first time on the 1968 maps.

The 1980-1981 pair of topographic maps depict several more structures on the property, and indicate agricultural land use on the property and surrounding parcels.

The 2012 topographic map does not depict structures or land use.

The review of historical USGS Topographic Quadrangles did not identify past uses indicating *recognized environmental conditions* at the property or surrounding areas. Copies of the topographic maps reviewed for the property are provided in Appendix G.

5.3.6 City Directories

Research of historical city directories was conducted by EDR, ranging from 1959 to 2017, at approximately five-year intervals. The following are descriptions and interpretations from the historical city directory review.

CITY DIRECTORY SUMMARY	
Year	**Comments**
1959, 1966	**Streets not listed**
1971, 1974	**Property**: No Schulte Road listing. David Pombo listed at 25726 Hansen Road **Surrounding Area**: Residences
1977	**Property**: No Schulte Road listing. David Pombo listed at 25726 Hansen Road **Surrounding Area**: Residences, 14700 Schulte: Owens Glass
1981	**Property**: No Schulte Road listing. David Pombo listed at 25726 and 25730 Hansen Road **Surrounding Area**: Residences, 14700 Schulte: Owens Glass
1985	**Property**: No Schulte Road listing. David Pombo listed at 25726 Hansen Road **Surrounding Area**: Residences, 14700 Schulte: Owens Glass
1992	**Property**: No Schulte Road listing. David or other Pombo family members listed at 25726, 25730, 25732, and 26151 Hansen Road **Surrounding Area**: Residences, 14700 Schulte: Owens Glass, 14800 Schulte: Tracy Biomass Plant
1995	**Property**: No Schulte Road listing. David or other Pombo family members listed at 25726, 25730, and 25732 Hansen Road **Surrounding Area**: Residences, 12780 Schulte: Triad Water Systems, 16900 Schulte: Specialized Distribution Management
2000	**Property**: No Schulte Road listing. David or other Pombo family members listed at 25716, 25726, and 25730 Hansen Road; 25732 Hansen Road is listed as Unknown **Surrounding Area**: Residences, 14700 Schulte: Owens Glass, 14800 Schulte: Tracy Biomass Plant, 16900 Schulte: Specialized Distribution Management (Safeway)
2005	**Property**: No Schulte Road listing. David or other Pombo family members listed at 25726 and 25730 Hansen Road; 25732 Hansen Road is listed as Unknown **Surrounding Area**: Residence, 16900 Schulte: Safeway Distribution Center
2010	**Property**: No Schulte Road listing. David or other Pombo family members listed at 25730 Hansen Road; 25732 Hansen Road is listed as Unknown **Surrounding Area**: Residence, 14800 Schulte: Tracy Biomass Plant, 16900 Schulte: Safeway
2014	**Property**: No Schulte Road listing. David or other Pombo family members listed at 25726 and 25730 Hansen Road **Surrounding Area**: Residences, 14800 Schulte: Tracy Biomass Plant, 14950 Schulte: GFW Energy
2017	**Property**: No Schulte Road listing. David Pombo listed at 25730 Hansen Road **Surrounding Area**: Residences, 14800 Schulte: Tracy Biomass Plant, 14950 Schulte: GFW Energy

The review of city directories did not identify past uses indicating *recognized environmental conditions* in, on, or at the property or surrounding areas. Documentation is included in Appendix G.

5.3.7 Building Department Records

ATC attempted to review available building department records for the property; however, due to the age of the development of the property no building department records were available.

5.3.8 Zoning/Land Use Records

According to the San Joaquin County website, San Joaquin County's zoning information internet resource, the property is currently zoned as Agricultural (AG-40). Historical zoning information was not available for review.

5.3.9 Prior Reports

No prior reports were made available to ATC for review.

5.3.10 Other Historical Sources

No other historical sources were reviewed.

6.0 SITE RECONNAISSANCE

The following is a summary of visual and/or physical observations of the property on the day of the site visit. Photographs can be found in Appendix C.

6.1 Methodology and Limiting Conditions

Mr. James Kundert, Geologist with ATC, conducted the site reconnaissance on October 14 and 19, 2020. Mr. Kundert was unaccompanied during the site reconnaissance visits. The site reconnaissance consisted of visual and/or physical observations of: the property and improvements; adjoining sites as viewed from the property; and the surrounding area based on visual observations made during the trip to and from the property. Unimproved portions of the property (if any) were observed along the perimeter and in a general grid pattern in safely accessible areas, if accessible and possible. Building exteriors (if any) were observed along the perimeter from the ground, unless described otherwise. Building interiors were not observed as access was not provided. The weather during the site reconnaissance was sunny and approximately 75 degrees Fahrenheit. There were no visibility restrictions due to weather conditions. No access restrictions were encountered for the majority of the property during the site reconnaissance with the exception of the four residences that were not accessible.

6.2 Hazardous Substance Use, Storage, and Disposal

ATC did not observe evidence of hazardous substance use, storage, and disposal on the property.

6.3 Underground Storage Tanks (USTs)

ATC did not observe evidence of USTs on the property.

6.4 Aboveground Storage Tanks (ASTs)

During the site reconnaissance, ATC identified two (2) active Liquid Petroleum Gas (LPG) or propane aboveground storage tanks (ASTs) of approximately 400 lbs and 800 lbs capacity at the property, as well as one inactive 400 lb LPG tank, two active water tanks (approximately 600 gallons and 2,000 gallons), and approximately one dozen inactive and stored water tanks (approximately 1,000 gallons each). The active LPG tanks were associated with the occupied residences, and the active water tanks were used to store water from the two water wells located on the property and provide pressure for the water supplied to the residences. The water and LPG ASTs at the property are not considered to represent a *recognized environmental condition* to the property.

6.5 Other Petroleum Products

ATC did not observe the use or storage of petroleum products on the property other than retail quantities of motor oil, and roughly two dozen motor vehicles in various conditions. Due to the observed quantities and conditions, the derelict vehicles and retail packaging storage are not considered recognized environmental conditions. Some vehicles may represent de minimis conditions based on mechanical conditions that could not be observed during the reconnaissance.

6.6 Polychlorinated Biphenyls (PCBs)

ATC observed two pole-mounted transformers along the central driveway near the residences. ATC did not observe labels regarding the PCB status of the transformers; however, based on discussion with the owner regarding electrical service (Pacific Gas & Electric), it is unlikely that the transformers are PCB-containing due to past statements by PG&E that they do not currently operate PCB-containing equipment. Evidence of leaks, stains, or other signs of release was not observed. Should a release occur the utility company

would be responsible for the mitigation and replacement of the unit. Based on the observed conditions, the pole-mounted transformers are not considered to represent a *recognized environmental condition*.

6.7 Unidentified Substance Containers

ATC did not observe the presence of unidentified substance containers on the property.

6.8 Nonhazardous Solid Waste

ATC did not observe evidence of the generation, storage or disposal of nonhazardous solid waste in, on or at the property, with the exception of scattered household debris throughout the south-central portion of the property. ATC did not observe any evidence of hazardous substances, or evidence of staining or releases associated with the scattered household debris observed, though tall grass hampered observations. The observed household debris represents a *de minimis* condition.

6.9 Wastewater

ATC observed evidence of wastewater generated, treated or discharged in, on or at the property or to adjoining properties as summarized below.

WASTEWATER SUMMARY TABLE			
Type of Wastewater	**Generation Process**	**Treatment System?**	**Discharged To?**
Stormwater	Rain Events	No	Percolate into property soil or runoff to adjoining properties
Domestic Wastewater	Residential Occupancy	Unknown	Four septic systems, associated with each residence

At the time of the site visit, ATC did not observe evidence of leaks, stains, or other signs of release. The identified wastewater sources do not represent a *recognized environmental condition* based on observed conditions.

6.10 Waste Pits, Ponds and Lagoons

ATC observed two inactive dairy ponds on the property. According to the property owner, these have been inactive since 1987, and were cleaned when they were retired. The eastern pond is plumbed to accept waste (cow manure and urine) via a surface channel from the dairy yard to the south, and transfer liquids to the western pond. It also, through a sump located at the south end, returns water to the top end of the dairy waste channel for re-use. The western pond appears to have an input pipe from the nearby canal to aid in dilution and water replacement during cleaning. The ponds and related plumbing remain in place.

Based on the use of the ponds to collect surface dairy runoff including manure when active, their long inactive status, and observed conditions, the dairy ponds do not represent a *recognized environmental condition* for the property.

6.11 Drains and Sumps

ATC did not observe evidence of drains or sumps on the property other than those associated with the recycling of water from the dairy ponds (Section 6.10). A return sump vault, water culvert vault, and valve vaults were observed at the south end of the ponds.

6.12 Septic Systems

ATC observed evidence of one or more septic systems in, on or at the property. No municipal sewer connections were observed on the property or nearby on the peripheral roads. The owner confirmed that each residence has an associated septic system located generally to the north of each building.

The use of septic systems in a residential context does not represent a *recognized environmental condition* for the property.

6.13 Stormwater Management System

Stormwater at the property is expected to infiltrate the ground surface or runoff to adjoining properties.

6.14 Wells

ATC observed two water wells near the center of the property, with two associated aboveground storage tanks (referenced in Section 6.4). The EDR Radius Report includes records for two wells on the property with depths of 305 and 265 feet, respectively.

The water supply wells do not represent a *recognized environmental condition* for the property.

7.0 SUBSURFACE VAPOR MIGRATION

ATC conducted a limited screening for potential vapor encroachment conditions (VECs) that may affect the property. The VEC screening focused on the current and historical usage of the property and also utilized the aforementioned regulatory agency database report provided by EDR and an EDR Vapor Encroachment Screen (VES) Report to evaluate identified Chemicals of Concern (COCs), including petroleum hydrocarbons. To identify the area of concern (AOC) for contaminated sites with non-petroleum hydrocarbon COCs, ATC utilized the approximate minimum search distance defined by ASTM E 2600-15 of 1,760 feet (1/3 mile) from the property boundary for COC-contaminated sites. For sites contaminated with petroleum hydrocarbon COCs, ATC utilized the AOC approximate minimum search distance of 528 feet (1/10 mile). The AOC was adjusted accordingly based on review of physical setting characteristics, known release information, property and land features, groundwater flow direction, and soil type, et al.

ASTM's Vapor Encroachment guidance indicates that when groundwater flow direction can be estimated or determined, the cross-gradient or downgradient radius distances can be significantly reduced. The EDR VES report calculates the reduced AOC distances when considering groundwater flow direction by utilizing the following default distances, which were determined using the Buonicore Methodology: (non-petroleum hydrocarbon COCs) 1,760 feet in the upgradient direction; 365 feet in the cross-gradient direction; and 100 feet in the downgradient direction and (petroleum hydrocarbon COCs) 528 feet in the upgradient direction; 165 feet in the cross-gradient direction if Light, Non-Aqueous Phase Liquid, (LNAPL i.e. floating product) is suspected; 95 feet in the cross-gradient direction if no LNAPL is suspected; 100 feet in the downgradient direction (LNAPL suspected); and 30 feet in the downgradient position (LNAPL not suspected).

ATC reviewed potential sources of COCs from the facilities reported on the EDR database report and VES report.

No VECs were identified in relation to the property.

Based on applicable AOC distances, assumed groundwater gradient, depth to groundwater, absence of reported releases, lack of registered hazardous waste generation sites, current remediation status/history of contaminated site, preferential pathways, physical setting information and target property use, the remaining sites evaluated under the VES either were ruled out because of the possibility of vapor impact in, on or at the target property was considered not likely.

The EDR database report is provided in Appendix E.

8.0 INTERVIEWS

The following persons were interviewed to obtain information regarding *recognized environmental conditions* in connection with the property:

INTERVIEW SUMMARY				
Role	**Name**	**Title/Company**	**Years Assoc. With Property**	**Interview Type**
Site Contact	Mr. David Pombo	Owner	>40 years	Telephone

Pertinent information from the interviews is discussed in applicable sections of this report with details (including failed attempts to interview) documented on Record of Communication forms in Appendix J.

9.0 OTHER ENVIRONMENTAL CONDITIONS

9.1 Asbestos-Containing Materials (ACM)

Due to the scope of work for this assessment, ACM samples were not collected. All structures on the property should be assessed for the presence of ACM prior to demolition activities.

9.2 Radon

Consideration of radon was not included in the scope of work for this assessment.

9.3 Lead in Drinking Water

Consideration of lead in drinking water content was not included in the scope of work for this assessment.

9.4 Lead-Based Paint (LBP)

Due to the scope of work for this assessment, LBP samples were not collected. All structures on the property should be assessed for the presence of LBP prior to demolition activities.

9.5 Mold Screening

A mold screening was not included in the scope of work for this assessment.

9.6 Additional User Requested Conditions

No additional User requested services were included in the scope of work for this ESA.

10.0 REFERENCES

ASTM International, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, ASTM Designation E1527-13. November 2013.

California, Department of Toxic Substances Control, EnviroStor online database, http://envirostor.dtsc.ca.gov/public/.

California, State of, Water Resources Control Board, Geotracker online database, http://geotracker.swrcb.ca.gov/.

Environmental Data Resources, Inc., *Certified Sanborn® Map Report*, Inquiry Number 6221465.3, dated October 9, 2020.

Environmental Data Resources, Inc., *EDR Environmental Lien and AUL Search*, Inquiry Number 6221465.11, dated October 12, 2020.

Environmental Data Resources, Inc., *Historical Topo Map Report*, Inquiry Number 6221465.4, dated October 9, 2020.

Environmental Data Resources, Inc., *The EDR Aerial Photo Decade Map*, Inquiry Number 6221465.9, dated October 9, 2020.

Environmental Data Resources, Inc., *The EDR-City Directory Abstract*, Inquiry Number 6221465.5, dated October 12, 2020.

Environmental Data Resources, Inc., *The EDR Radius Map™ Report with Geocheck®*, Inquiry Number 6221465.2s, dated October 9, 2020.

San Joaquin County GIS Website, http:// https://www.sjmap.org//.

San Joaquin County Environmental Health Records, https://www.sjgov.org/department/envhealth/public-records

United States Department of Agriculture (USDA), Soil Conservation Service, *Soil Survey of San Joaquin County, California*, dated October 1992.

United States Geological Survey (USGS), Topographic Map, Tracy Quadrangle Map, 7.5 Minute Series, dated October 2012.

11.0 TERMINOLOGY

The following provides definitions and descriptions of certain terms that may be used in this report. Italics indicate terms that are defined by ASTM Standard Practice E1527-13. The Standard Practice should be referenced for further detail (such as the precise wording), related definitions or additional explanation regarding the meaning of terms.

recognized environmental condition(s) (REC) - the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

material threat - a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional (EP), is threatening and might result in impact to public health or the environment. An example might include an aboveground storage tank system that contains a hazardous substance and which shows evidence of damage such that it may cause or contribute to tank integrity failure with a release of contents to the environment.

de minimis condition – is a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the appropriate governmental agencies. A condition determined to be *de minimis* is not a *REC* or *controlled recognized environmental condition (CREC)*.

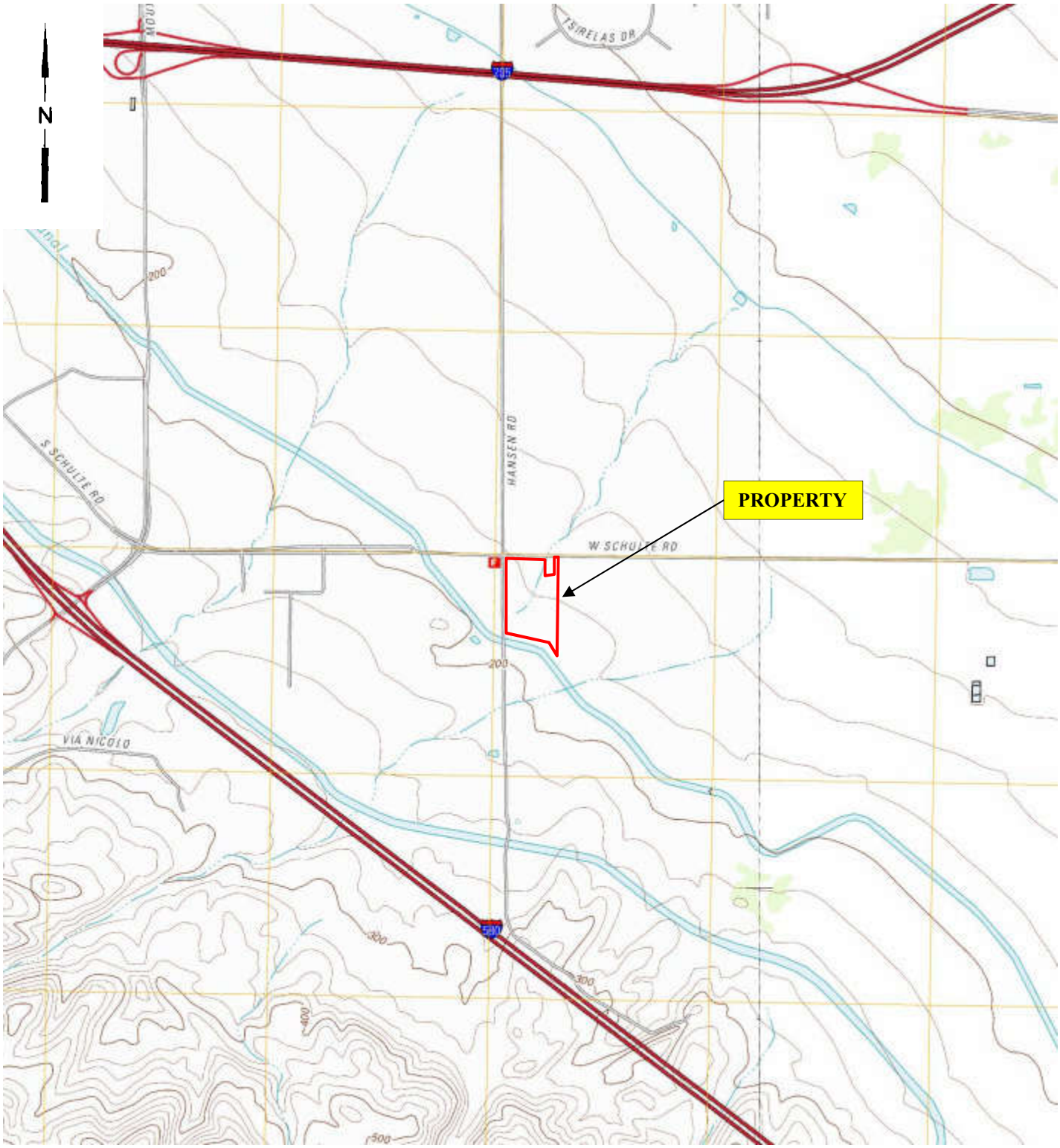
historical recognized environmental condition(s) (HREC) - a past release of any *hazardous substances* or *petroleum products* that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a *HREC*, the EP must determine whether the past release is a *REC* at the time the assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a *REC* at the time the Phase I ESA is conducted, the condition will be reported in Section 1.2 the Findings and Conclusions Summary table as a *REC*.

controlled recognized environmental condition (CREC) - a *recognized environmental condition* resulting from a past release of *hazardous substances* or *petroleum products* that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitation, institutional controls, or engineering controls). Per E1527-13, a *CREC* will be reported in the Section 1.2 Findings and Conclusions Summary table as a *CREC* and a *REC*.

migrate/migration - refers to the movement of *hazardous substances* or *petroleum products* in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.

APPENDIX A

SITE VICINITY MAP



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP
TRACY QUADRANGLE, CALIFORNIA, DATED 2012.

1117 Lone Palm Ave, Ste 201
Modesto, CA 95351
(209) 579-2221

PROJECT NO: NPPAN20063

DESIGNED BY: JK	SCALE: 1:24,000	REVIEWED BY: JH
DRAWN BY: JK	DATE: 10/20	FILE: VICINITY

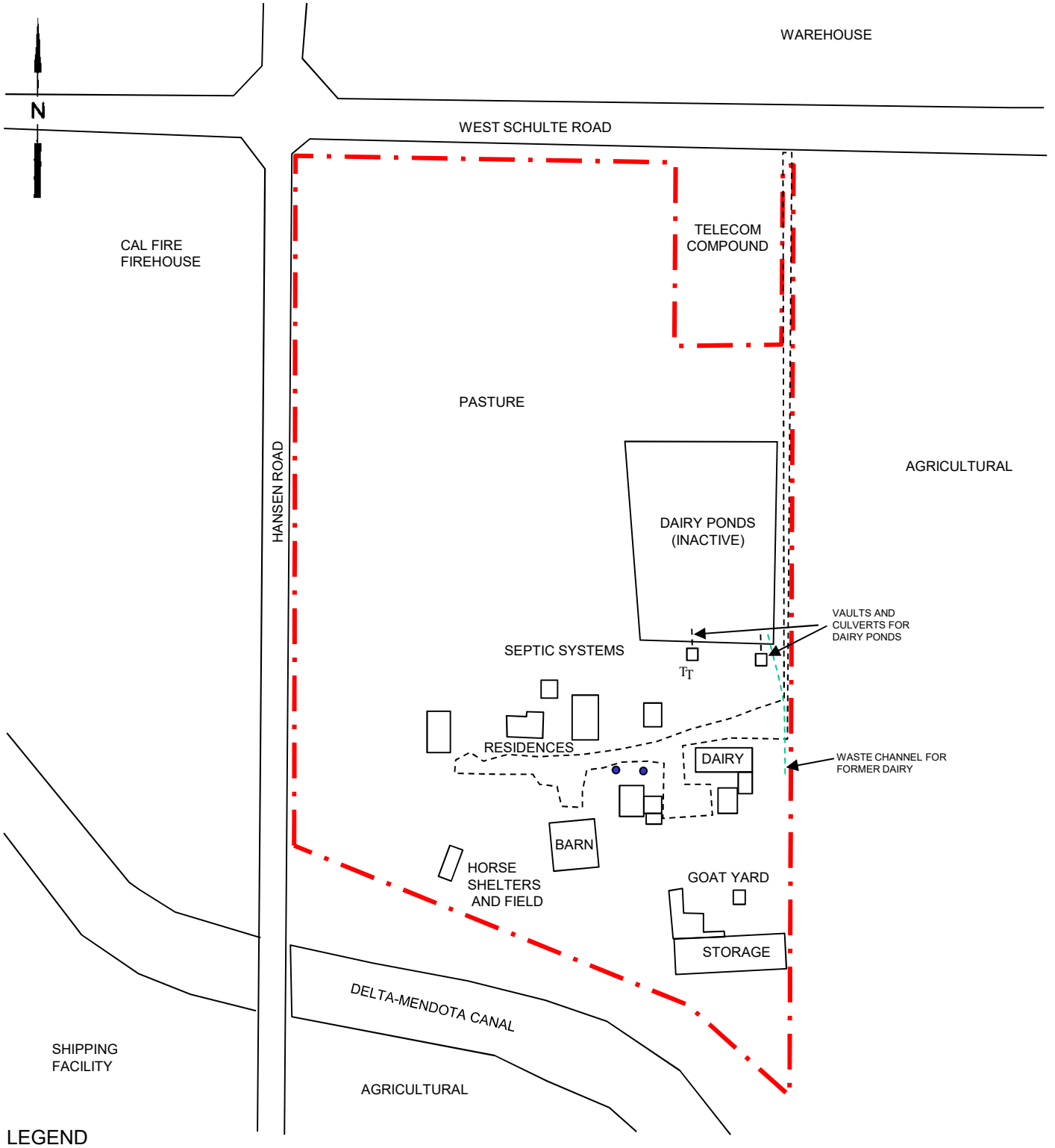
PROPERTY LOCATION

ENVIRONMENTAL SITE ASSESSMENT

WEST SCHULTE ROAD – 18.66 ACRES
16286 WEST SCHULTE ROAD
TRACY, CALIFORNIA

APPENDIX B

SITE PLAN



LEGEND

T = Pole-Mounted Transformer

● = Water Supply Well

SOURCE: GOOGLE EARTH

1117 Lone Palm Ave, Ste 201
Modesto, CA 95351
(209) 579-2221

SITE PLAN

ENVIRONMENTAL SITE ASSESSMENT

WEST SCHULTE ROAD – 18.66 ACRES
16286 WEST SCHULTE ROAD
TRACY, CALIFORNIA

PROJECT NO: NPPAN20063		
DESIGNED BY: JK	SCALE: 1:24,000	REVIEWED BY: JH
DRAWN BY: JK	DATE: 10/20	FILE: VICINITY

APPENDIX C

SITE PHOTOGRAPHS

Photo #1: Near southwest corner looking north into pasture.

Photo #2: Near southwest corner looking southeast along canal.

Photo #3: Near southeast corner looking northeast along canal. Inactive water ASTs in foreground.

Photo #4: Near southeast corner looking north.

Photo #5: Northwest corner looking south along Hansen Road.

Photo #6: Supply wells and pressure tanks near center of property. Silo and dairy buildings in background.

Photo #7: Inactive dairy ponds on eastern edge of property.

Photo #8: Propane/LPG tank between two western residences.

Photo #9: Propane/LPG tank between two eastern (derelict) residences.

Photo #10: Central driveway from eastern edge of property, looking west.

.

Photo #11: Interior of southern storage shed, referred to by the owner as the “tin shed”

Photo #12: Western side of dairy buildings and silo.

Photo #13: Discarded and stored equipment near horse barn.

Photo #14: Pole-mounted transformers and eastern vehicle collection.

Photo #15: Pond discharge end of dairy waste channel into eastern pond on right, and pipe connecting pond to a vault.

Photo #16: Vault with pipe. This vault had no other visible inlets.

Photo #17: Upper waste channel from former dairy field to ponds.

Photo #18: Buried lower waste channel from former dairy field to ponds. Vault from Photos 15 and 16 visible in weeds.

Photo #19: Inactive dairy buildings and livestock field, currently used by one horse and a small number of goats.

Photo #20: Eastern edge of property looking south along livestock yard and inactive dairy waste channel.

Photo #21: Looking south from eastern driveway across inactive dairy buildings and livestock yard.

APPENDIX D

USER PROVIDED DOCUMENTATION

PHASE I ENVIRONMENTAL SITE ASSESSMENT – ASTM 1527-13
USER QUESTIONNAIRE

In order to qualify for one of the Landowner Liability Protections offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments") the user should provide the following information (if available) to the environmental professional.

1) Title Review - Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25). ***Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?*** **NO**

2) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26). ***Are you aware of any activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?*** **NO**

3) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28). ***Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?***

NO

4) Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29). ***Does the purchase price being paid for this property reasonably reflect the fair market value of the property?*** **YES**

If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

5) Commonly known or reasonably ascertainable information about the property (40 CFR 312.30). ***Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases of hazardous materials?***

(a.) Do you know the past uses of the property? NO

(b.) Do you know of specific chemicals that are present or once were present at the property? NO

(c.) Do you know of spills or other chemical releases that have taken place at the property? NO

(d.) Do you know of any environmental cleanups that have taken place at the property? NO

User's Initials TM

Property Name ___Schulte Road

6) The degree of obviousness of the presence, or likely presence, of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31). ***Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence, or likely presence, of contamination at the property?***

NO

7) Proceedings Involving the Property Pursuant to ASTM E 1527-13 §10.9, ***As the user of this ESA do you know of (1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property; (2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property; and (3) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?***

NO

SIGNATURE

I have completed this *User Questionnaire* to the best of my actual knowledge only, and provided readily available information, if any, as stated in this document to the environmental professional as of the following date. The information contained in this document does not constitute a warranty or guarantee of any kind as to the accuracy of any third party information provided, and the undersigned disclaims any liability for the reliance on any such information by others.

Trevor McKune

SIGNATURE

10/8/2020
DATE

Trevor McKune

PRINT OR TYPE NAME

Schulte Road

PROPERTY NAME

Tracy, CA

LOCATION

APPENDIX E

REGULATORY DATABASE REPORT

West Schulte Road
16286 West Schulte Road
Tracy, CA 95377

Inquiry Number: 6221465.2s
October 09, 2020

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

16286 WEST SCHULTE ROAD
TRACY, CA 95377

COORDINATES

Latitude (North):	37.7200320 - 37° 43' 12.11''
Longitude (West):	121.5116090 - 121° 30' 41.79''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	631179.0
UTM Y (Meters):	4175590.2
Elevation:	181 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640068 MIDWAY, CA
Version Date:	2012
Southeast Map:	5640426 TRACY, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140628
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
16286 WEST SCHULTE ROAD
TRACY, CA 95377

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	SHELL OIL COMPANY -	HANSEN & SHULTE RD	CPS-SLIC	Higher	86, 0.016, NW
A2	SHELL PIPELINE CO LP	W SCHULTE AND HANSEN	RCRA-SQG	Higher	86, 0.016, NW
3	UPS SUPPLY CHAIN SOL	5849 WEST SCHULTE RO	CERS TANKS, NPDES, CIWQS, CERS	Lower	435, 0.082, NE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List

US INST CONTROLS ..... Institutional Controls Sites List

Federal ERNS list

ERNS ..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ..... State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR ..... EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ..... Solid Waste Information System

State and tribal leaking storage tank lists

LUST ..... Geotracker's Leaking Underground Fuel Tank Report
INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ..... Underground Storage Tank Listing
UST ..... Active UST Facilities
AST ..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST ..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP ..... Voluntary Cleanup Program Properties
INDIAN VCP ..... Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ..... Waste Management Unit Database
SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
ODI ..... Open Dump Inventory
IHS OPEN DUMPS ..... Open Dumps on Indian Land

EXECUTIVE SUMMARY

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
HIST Cal-Sites	Historical Calsites Database
SCH	School Property Evaluation Program
CDL	Clandestine Drug Labs
Toxic Pits	Toxic Pits Cleanup Act Sites
CERS HAZ WASTE	CERS HAZ WASTE
US CDL	National Clandestine Laboratory Register
PFAS	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
HIST UST	Hazardous Substance Storage Container Database
CA FID UST	Facility Inventory Database

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List

PCB TRANSFORMER - PCB Transformer Registration Database
RADINFO - Radiation Information Database
HIST FTTS - FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS - Incident and Accident Data
CONSENT - Superfund (CERCLA) Consent Decrees
INDIAN RESERV - Indian Reservations
FUSRAP - Formerly Utilized Sites Remedial Action Program
UMTRA - Uranium Mill Tailings Sites
LEAD SMELTERS - Lead Smelter Sites
US AIRS - Aerometric Information Retrieval System Facility Subsystem
US MINES - Mines Master Index File
ABANDONED MINES - Abandoned Mines
FINDS - Facility Index System/Facility Registry System
UXO - Unexploded Ordnance Sites
DOCKET HWC - Hazardous Waste Compliance Docket Listing
ECHO - Enforcement & Compliance History Information
FUELS PROGRAM - EPA Fuels Program Registered Listing
CA BOND EXP. PLAN - Bond Expenditure Plan
Cortese - "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings - CUPA Resources List
DRYCLEANERS - Cleaner Facilities
EMI - Emissions Inventory Data
ENF - Enforcement Action Listing
Financial Assurance - Financial Assurance Information Listing
HAZNET - Facility and Manifest Data
ICE - ICE
HIST CORTESE - Hazardous Waste & Substance Site List
HWP - EnviroStor Permitted Facilities Listing
HWT - Registered Hazardous Waste Transporter Database
MINES - Mines Site Location Listing
MWMP - Medical Waste Management Program Listing
NPDES - NPDES Permits Listing
PEST LIC - Pesticide Regulation Licenses Listing
PROC - Certified Processors Database
Notify 65 - Proposition 65 Records
UIC - UIC Listing
UIC GEO - UIC GEO (GEOTRACKER)
WASTEWATER PITS - Oil Wastewater Pits Listing
WDS - Waste Discharge System
WIP - Well Investigation Program Case List
MILITARY PRIV SITES - MILITARY PRIV SITES (GEOTRACKER)
PROJECT - PROJECT (GEOTRACKER)
WDR - Waste Discharge Requirements Listing
CIWQS - California Integrated Water Quality System
CERS - CERS
NON-CASE INFO - NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS - OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS - PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT - SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ - Well Stimulation Project (GEOTRACKER)
HWTS - Hazardous Waste Tracking System
MINES MRDS - Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR Hist Auto ---------- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner ---------- EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---------- Recovered Government Archive Solid Waste Facilities List
RGA LUST ---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/15/2020 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELL PIPELINE CO LP EPA ID:: CAR000231092	W SCHULTE AND HANSEN	NW 0 - 1/8 (0.016 mi.)	A2	9

State and tribal leaking storage tank lists

CPS-SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the CPS-SLIC list, as provided by EDR, has revealed that there is 1 CPS-SLIC site within

approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELL OIL COMPANY -	HANSEN & SHULTE RD	NW 0 - 1/8 (0.016 mi.)	A1	9
Database: SLIC REG 5, Date of Government Version: 04/01/2005				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

CERS TANKS: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

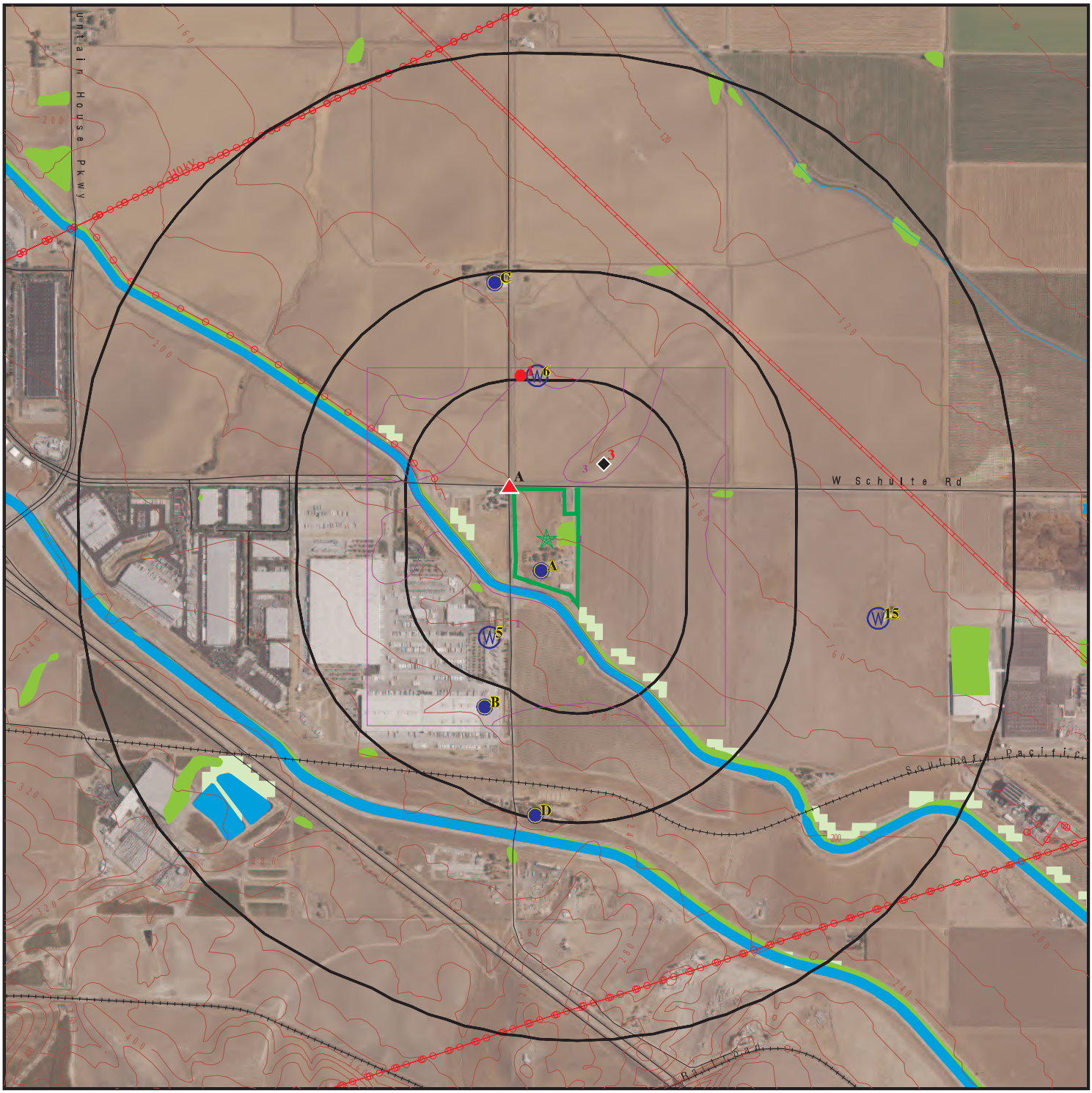
A review of the CERS TANKS list, as provided by EDR, and dated 07/20/2020 has revealed that there is 1 CERS TANKS site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
UPS SUPPLY CHAIN SOL	***5849 WEST SCHULTE RO***	***NE 0 - 1/8 (0.082 mi.)***	***3***	***12***

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 6221465.2S



0 1/4 1/2 1 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Pipelines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	West Schulte Road	CLIENT:	ATC Group Services LLC
ADDRESS:	16286 West Schulte Road Tracy CA 95377	CONTACT:	Jim Kundert
		INQUIRY #:	6221465.2s
LAT/LONG:	37.720032 / 121.511609	DATE:	October 09, 2020 9:28 am

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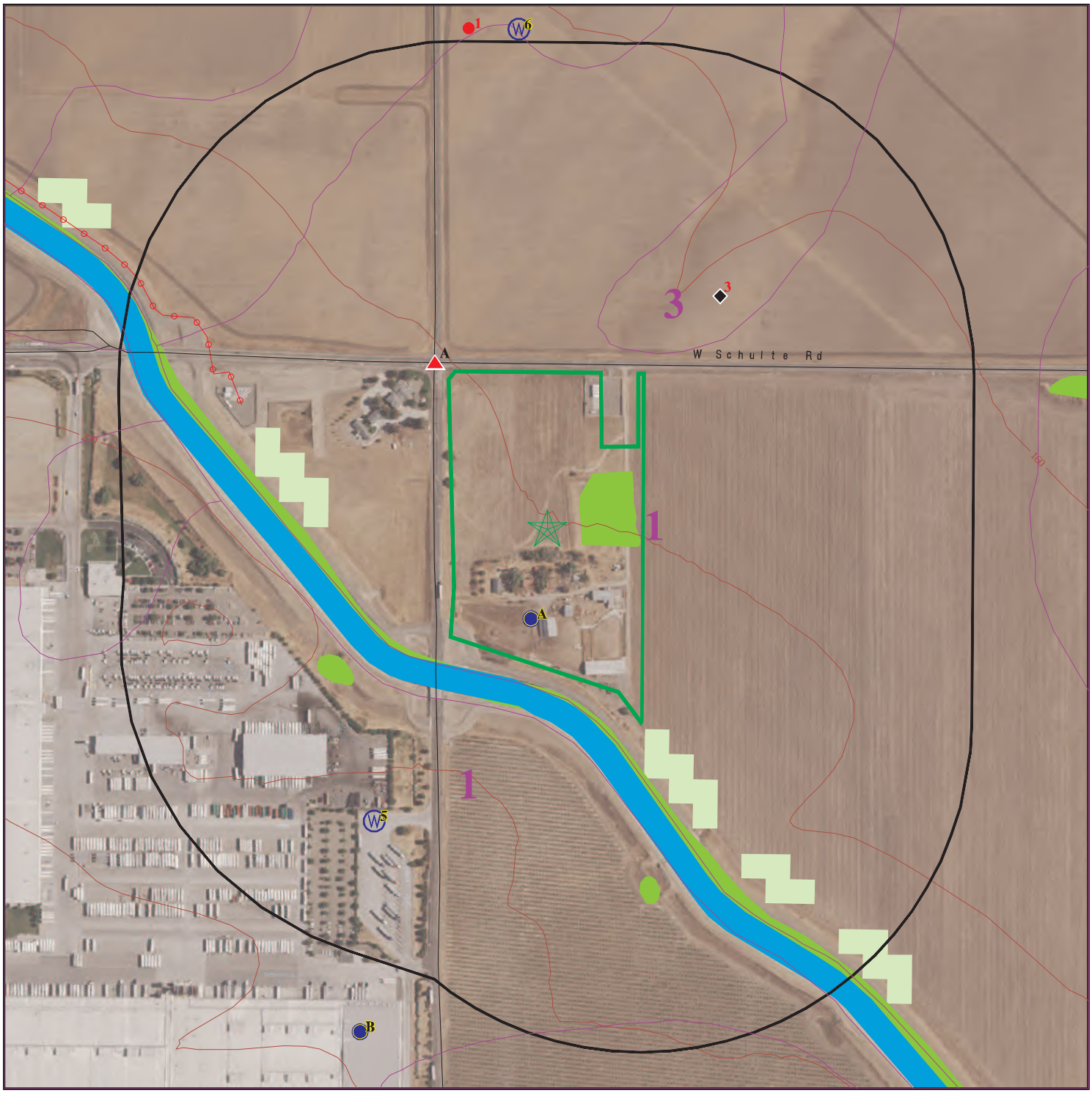
DETAIL MAP - 6221465.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/16 1/8 1/4 Miles

- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: West Schulte Road	CLIENT: ATC Group Services LLC
ADDRESS: 16286 West Schulte Road Tracy CA 95377	CONTACT: Jim Kundert
LAT/LONG: 37.720032 / 121.511609	INQUIRY #: 6221465.2s DATE: October 09, 2020 9:29 am

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		1	0	NR	NR	NR	1
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		1	0	0	NR	NR	1
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		1	0	NR	NR	NR	1
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP		NR	NR	NR	NR	NR	0
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	3	0	0	0	0	3

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
NW
< 1/8
0.016 mi.
86 ft.

SHELL OIL COMPANY - HANSEN & SHULTE RD
HANSEN & SHULTE RD
TRACY, CA

CPS-SLIC **S106230430**
N/A

Site 1 of 2 in cluster A

Relative:
Higher

Actual:
181 ft.

SLIC REG 5:

Name:	Shell Oil Company - Hansen & Shulte Rd
Address:	Hansen & Shulte Rd
City:	Tracy
Region:	5
Facility Status:	RI
Unit:	Facility is a Spill or site
Pollutant:	TPH
Lead Agency:	DLL
Date Filed:	/ /
Report Date:	/ /
Date Added:	Not reported
Date Closed:	Not reported

A2
NW
< 1/8
0.016 mi.
86 ft.

SHELL PIPELINE CO LP LOCATION NO 805248 DRUM LOCAT
W SCHULTE AND HANSEN
TRACY, CA 95377

RCRA-SQG **1015740401**
CAR000231092

Site 2 of 2 in cluster A

Relative:
Higher

Actual:
181 ft.

RCRA Listings:

Date Form Received by Agency:	2012-10-25 00:00:00.0
Handler Name:	SHELL PIPELINE CO LP LOCATION NO 805248 DRUM LOCATION
Handler Address:	W SCHULTE AND HANSEN
Handler City,State,Zip:	TRACY, CA 95377
EPA ID:	CAR000231092
Contact Name:	RAY E WALDING
Contact Address:	PO BOX 2648
Contact City,State,Zip:	HOUSTON, TX 77252-2648
Contact Telephone:	713-241-7008
Contact Fax:	713-241-0240
Contact Email:	RAY.WALDING@SHELL.COM
Contact Title:	RESIDUAL DISPOSAL COORD
EPA Region:	09
Land Type:	Private
Federal Waste Generator Description:	Small Quantity Generator
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	PO BOX 2648
Mailing City,State,Zip:	HOUSTON, TX 77252-2648
Owner Name:	SHELL PIPELINE CO LP
Owner Type:	Private
Operator Name:	SHELL PIPELINE CO LP
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No

SHELL PIPELINE CO LP LOCATION NO 805248 DRUM LOCATION MW 5 (Continued) **1015740401**

Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2012-11-08 18:33:10.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	IGNITABLE WASTE
Waste Code:	D018
Waste Description:	BENZENE

SHELL PIPELINE CO LP LOCATION NO 805248 DRUM LOCATION MW 5 (Continued) **1015740401**

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	SHELL PIPELINE CO LP
Legal Status:	Private
Date Became Current:	2002-05-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	PO BOX 2648
Owner/Operator City,State,Zip:	HOUSTON, TX 77252-2648
Owner/Operator Telephone:	713-241-7008
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	SHELL PIPELINE CO LP
Legal Status:	Private
Date Became Current:	2002-05-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2012-10-25 00:00:00.0
Handler Name:	SHELL PIPELINE CO LP LOCATION NO 805248 DRUM LOCATION MW 5
Federal Waste Generator Description:	Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	48611
NAICS Description:	PIPELINE TRANSPORTATION OF CRUDE OIL

Facility Has Received Notices of Violation:

No Violations Found:

Evaluation Action Summary:

No Evaluations Found:

3
NE
< 1/8
0.082 mi.
435 ft.

UPS SUPPLY CHAIN SOLUTIONS CATAC
5849 WEST SCHULTE ROAD
TRACY, CA 95377

CERS TANKS
NPDES
CIWQS
CERS

S125343266
N/A

Relative:
Lower

Actual:
164 ft.

CERS TANKS:

Name:	UPS SUPPLY CHAIN SOLUTIONS - CATAC
Address:	5849 W SCHULTE RD STE 107
City,State,Zip:	TRACY, CA 95377
Site ID:	557511
CERS ID:	10825609
CERS Description:	Aboveground Petroleum Storage

NPDES:

Name:	UPS SUPPLY CHAIN SOLUTIONS CATAC
Address:	5849 WEST SCHULTE ROAD
City,State,Zip:	TRACY, CA 95377
Facility Status:	Not reported
NPDES Number:	Not reported
Region:	Not reported
Agency Number:	Not reported
Regulatory Measure ID:	Not reported
Place ID:	Not reported
Order Number:	Not reported
WDID:	5S39NEC005607
Regulatory Measure Type:	Industrial
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	Not reported
Discharge Name:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
Status:	Active
Status Date:	10/21/2019
Operator Name:	UPS Cartage Services Inc
Operator Address:	12380 Morris Rd
Operator City:	Alpharetta
Operator State:	Georgia
Operator Zip:	30005

Name:	UPS SUPPLY CHAIN SOLUTIONS CATAC
Address:	5849 WEST SCHULTE ROAD
City,State,Zip:	TRACY, CA 95377
Facility Status:	Active
NPDES Number:	CAS000001
Region:	5S
Agency Number:	0
Regulatory Measure ID:	513657
Place ID:	Not reported
Order Number:	97-03-DWQ
WDID:	5S39NEC005607
Regulatory Measure Type:	Enrollee
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported

UPS SUPPLY CHAIN SOLUTIONS CATAC (Continued) **S125343266**

Effective Date Of Regulatory Measure:	10/21/2019
Termination Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Discharge Address:	12380 Morris Rd
Discharge Name:	UPS Cartage Services Inc
Discharge City:	Alpharetta
Discharge State:	Georgia
Discharge Zip:	30005
Status:	Not reported
Status Date:	Not reported
Operator Name:	Not reported
Operator Address:	Not reported
Operator City:	Not reported
Operator State:	Not reported
Operator Zip:	Not reported

CIWQS:

Name:	UPS SUPPLY CHAIN SOLUTIONS CATAC
Address:	5849 WEST SCHULTE ROAD SUITE 107
City,State,Zip:	TRACY, CA 95377
Agency:	UPS Cartage Services Inc
Agency Address:	12380 Morris Rd, Alpharetta, GA 30005
Place/Project Type:	Industrial - General Warehousing and Storage
SIC/NAICS:	4225
Region:	5S
Program:	INDSTW
Regulatory Measure Status:	Active
Regulatory Measure Type:	Storm water industrial
Order Number:	2014-0057-DWQ
WDID:	5S39NEC005607
NPDES Number:	CAS000001
Adoption Date:	Not reported
Effective Date:	10/21/2019
Termination Date:	Not reported
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	37.722567
Longitude:	-121.509217

CERS:

Name:	UPS SUPPLY CHAIN SOLUTIONS - CATAC
Address:	5849 W SCHULTE RD STE 107
City,State,Zip:	TRACY, CA 95377
Site ID:	557511
CERS ID:	10825609
CERS Description:	Chemical Storage Facilities

Violations:

Site ID:	557511
Site Name:	UPS Supply Chain Solutions - CATAC
Violation Date:	1/10/2020
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter

UPS SUPPLY CHAIN SOLUTIONS CATAC (Continued) **S125343266**

6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 02/03/2020. The site map was not completed as part of the business plan. The site map is missing adjacent street names and utilities shut offs for water, power and natural gas. Please add the missing elements to the site map. A site map shall contain a north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous material handling and storage areas, and emergency response equipment. If a site map element is not applicable for your facility then list it on the map and label as G NA". Immediately log into the California Environmental Reporting System (CERS) at http://cers.calepa.ca.gov/, upload the correct or updated information, and submit to the EHD for approval.
Violation Division: San Joaquin County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-10-2020
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Complete and submit a copy of the Return to Compliance Certification form to the EHD with a statement documenting the corrective actions that have been or will be taken for each violation, and any supporting paperwork, with in 30 days of receiving the inspection report.
Starting September 1, 2018, all in-office CERS help will be provided at EHD hourly rate ($152). To schedule an appointment, please call (209) 468-3420.
Eval Division: San Joaquin County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Affiliation:
Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 5849 W Schulte Rd Ste 107
Affiliation City: Tracy
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 95377
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: UPS Supply Chain Solutions
Entity Title: Not reported
Affiliation Address: 12380 Morris Road
Affiliation City: Alpharetta
Affiliation State: GA
Affiliation Country: United States
Affiliation Zip: 30005
Affiliation Phone: (678) 746-4100

UPS SUPPLY CHAIN SOLUTIONS CATAC (Continued) **S125343266**

Affiliation Type Desc:	Parent Corporation
Entity Name:	UPS Supply Chain Solutions
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	Benjamin C. Swanson
Entity Title:	UPS SCS Global BaSE Manager
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Property Owner
Entity Name:	Matthew Drury (Prologis)
Entity Title:	Not reported
Affiliation Address:	815 International Parkway
Affiliation City:	Tracy
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	95377
Affiliation Phone:	(209) 833-5389

Affiliation Type Desc:	Document Preparer
Entity Name:	Juan Carlos Gomez
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Environmental Contact
Entity Name:	Juan Carlos Gomez
Entity Title:	Not reported
Affiliation Address:	5255 Lovelock Street
Affiliation City:	San Diego
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92110
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	UPS Supply Chain Solutions
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported

UPS SUPPLY CHAIN SOLUTIONS CATAC (Continued) **S125343266**

Affiliation Zip:	Not reported
Affiliation Phone:	(209) 855-8990
Affiliation Type Desc:	CUPA District
Entity Name:	San Joaquin Cnty Env Health
Entity Title:	Not reported
Affiliation Address:	1868 East Hazelton Avenue
Affiliation City:	Stockton
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	95205-6232
Affiliation Phone:	(209) 468-3420
Name:	UPS SUPPLY CHAIN SOLUTIONS CATAC
Address:	5849 WEST SCHULTE ROAD
City,State,Zip:	TRACY, CA 95377
Site ID:	559294
CERS ID:	876407
CERS Description:	Industrial Facility Storm Water

Affiliation:

Affiliation Type Desc:	Owner/Operator
Entity Name:	UPS Cartage Services Inc
Entity Title:	Operator
Affiliation Address:	12380 Morris Rd
Affiliation City:	Alpharetta
Affiliation State:	GA
Affiliation Country:	Not reported
Affiliation Zip:	30005
Affiliation Phone:	Not reported

Count: 0 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/06/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 87

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/18/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/18/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/18/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/18/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/15/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 30

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/24/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/24/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 87

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 07/27/2020
Date Data Arrived at EDR: 07/27/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 73

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 07/27/2020
Date Data Arrived at EDR: 07/27/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 73

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/11/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 08/10/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/26/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 78

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/15/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 02/01/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 05/26/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 09/15/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/26/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 78

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/03/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/23/2020
Next Scheduled EDR Contact: 11/01/2020
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 07/27/2020
Date Data Arrived at EDR: 07/27/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 73

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/16/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 06/22/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/04/2020
Number of Days to Update: 74

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/15/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/29/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 75

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 07/27/2020
Date Data Arrived at EDR: 07/27/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 73

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2019
Date Data Arrived at EDR: 05/28/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 07/20/2020
Date Data Arrived at EDR: 07/21/2020
Date Made Active in Reports: 10/07/2020
Number of Days to Update: 78

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 05/20/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/06/2020
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 07/20/2020
Date Data Arrived at EDR: 07/21/2020
Date Made Active in Reports: 10/07/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/29/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 75

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/22/2020
Date Data Arrived at EDR: 06/23/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 86

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/21/2020
Date Made Active in Reports: 10/07/2020
Number of Days to Update: 78

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/18/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/18/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 86

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/13/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/08/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/05/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/06/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/18/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 79

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/14/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/20/2020
Date Data Arrived at EDR: 07/21/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 79

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 01/31/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 08/03/2020
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/15/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 34

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 70

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/05/2020
Date Data Arrived at EDR: 08/10/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 59

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 42
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/04/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/06/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 09/24/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/15/2020
Date Made Active in Reports: 07/21/2020
Number of Days to Update: 6

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/06/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/21/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/28/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 77

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 09/10/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/21/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/28/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/28/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/22/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 80

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/16/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 86

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/15/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/27/2020
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/28/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 10/06/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77
Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/08/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 08/03/2020
Number of Days to Update: 76
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/22/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/04/2020
Number of Days to Update: 74
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/23/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 08/14/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72
Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/04/2020
Date Data Arrived at EDR: 06/05/2020
Date Made Active in Reports: 08/17/2020
Number of Days to Update: 73
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 08/24/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 08/19/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 09/04/2020
Number of Days to Update: 14
Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/29/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 75
Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73
Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/18/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 07/20/2020
Date Data Arrived at EDR: 07/21/2020
Date Made Active in Reports: 10/07/2020
Number of Days to Update: 78
Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 07/13/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75
Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/14/2020
Date Data Arrived at EDR: 05/15/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 73

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/05/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 73

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/18/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 74

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/06/2020
Date Data Arrived at EDR: 07/07/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/06/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 05/12/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/28/2020
Number of Days to Update: 77
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/10/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 08/21/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 08/27/2020
Number of Days to Update: 6
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 08/20/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 06/06/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 09/16/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 07/20/2020
Date Data Arrived at EDR: 07/21/2020
Date Made Active in Reports: 10/07/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System
DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 04/09/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Semi-Annually

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 08/28/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/01/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 16

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/01/2020
Number of Days to Update: 13

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 06/17/2020
Date Data Arrived at EDR: 06/18/2020
Date Made Active in Reports: 09/02/2020
Number of Days to Update: 76

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 07/16/2020
Date Data Arrived at EDR: 07/22/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 78

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 04/16/2020
Date Data Arrived at EDR: 04/20/2020
Date Made Active in Reports: 07/08/2020
Number of Days to Update: 79

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 08/13/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/07/2020
Date Data Arrived at EDR: 05/07/2020
Date Made Active in Reports: 07/23/2020
Number of Days to Update: 77

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 08/13/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/01/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 78

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/19/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 26

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 08/26/2020
Number of Days to Update: 113

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 73

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/11/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 08/21/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/14/2020
Number of Days to Update: 77

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/07/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 01/31/2020
Date Made Active in Reports: 04/09/2020
Number of Days to Update: 69

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 09/10/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/06/2020
Date Data Arrived at EDR: 07/10/2020
Date Made Active in Reports: 09/28/2020
Number of Days to Update: 80

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/13/2020
Date Data Arrived at EDR: 07/13/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 78

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/13/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/07/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/25/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/25/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/25/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 04/14/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 78

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/17/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 10/07/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/05/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 09/23/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/28/2020
Date Data Arrived at EDR: 07/30/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 1

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 05/15/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 07/13/2020
Date Data Arrived at EDR: 07/15/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 16

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 09/23/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/07/2020
Date Made Active in Reports: 07/24/2020
Number of Days to Update: 78

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/08/2020
Date Made Active in Reports: 07/24/2020
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/08/2020
Date Made Active in Reports: 07/24/2020
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/10/2020
Date Made Active in Reports: 08/24/2020
Number of Days to Update: 75

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 03/10/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 70

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/15/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 03/10/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 70
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/10/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 04/24/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76
Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/25/2020
Date Data Arrived at EDR: 02/26/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 71
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/10/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/08/2020
Date Data Arrived at EDR: 05/08/2020
Date Made Active in Reports: 08/03/2020
Number of Days to Update: 87

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/11/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/01/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 05/08/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 04/22/2020
Date Data Arrived at EDR: 04/24/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 13

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 08/25/2020
Date Data Arrived at EDR: 08/26/2020
Date Made Active in Reports: 09/16/2020
Number of Days to Update: 21

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 07/07/2020
Date Data Arrived at EDR: 07/08/2020
Date Made Active in Reports: 09/25/2020
Number of Days to Update: 79

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/16/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2020
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/16/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/04/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 70

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 05/26/2020
Date Data Arrived at EDR: 05/28/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 77

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 73

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 05/14/2020
Date Data Arrived at EDR: 05/15/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 73

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 08/06/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 07/10/2020
Date Data Arrived at EDR: 07/22/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 78

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/23/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 07/10/2020
Date Data Arrived at EDR: 07/22/2020
Date Made Active in Reports: 10/07/2020
Number of Days to Update: 77

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/26/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 06/23/2020
Date Data Arrived at EDR: 06/29/2020
Date Made Active in Reports: 09/15/2020
Number of Days to Update: 78

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 10/07/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 79

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/12/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/10/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/07/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019
Number of Days to Update: 69

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/02/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

WEST SCHULTE ROAD
16286 WEST SCHULTE ROAD
TRACY, CA 95377

TARGET PROPERTY COORDINATES

Latitude (North):	37.720032 - 37° 43' 12.12''
Longitude (West):	121.511609 - 121° 30' 41.79''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	631179.0
UTM Y (Meters):	4175590.2
Elevation:	181 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640068 MIDWAY, CA
Version Date:	2012
Southeast Map:	5640426 TRACY, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

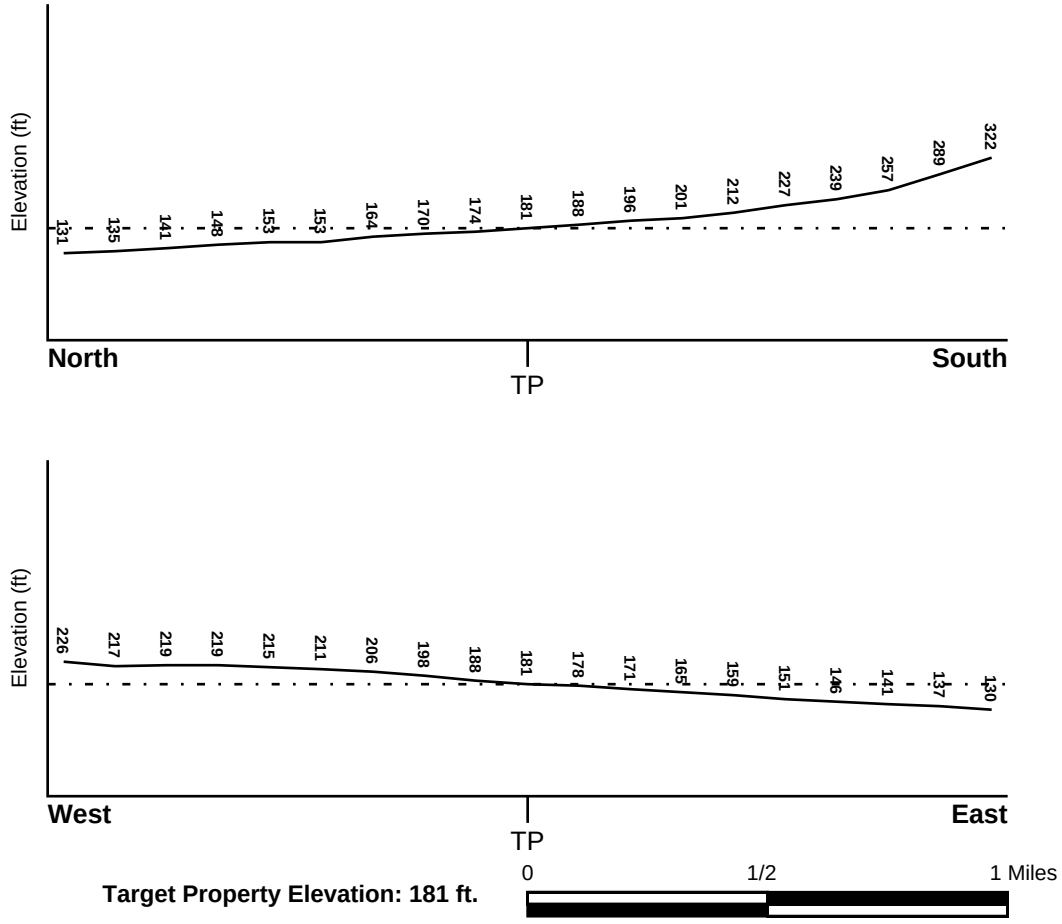
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06077C0725F	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06001C0400G	FEMA FIRM Flood data
0602990705A	FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
MIDWAY	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

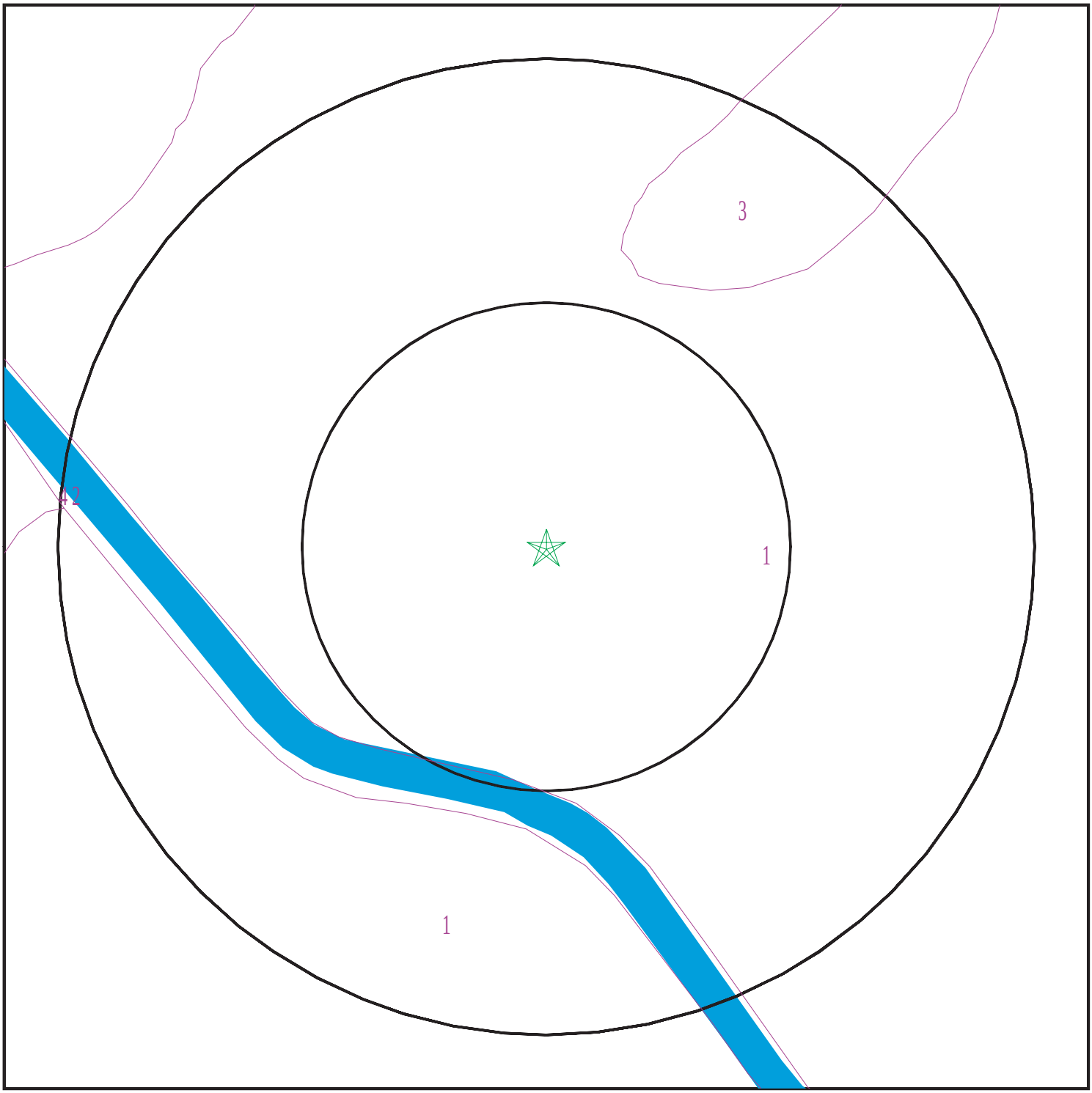
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6221465.2s



SITE NAME:	West Schulte Road	CLIENT:	ATC Group Services LLC
ADDRESS:	16286 West Schulte Road Tracy CA 95377	CONTACT:	Jim Kundert
		INQUIRY #:	6221465.2s
LAT/LONG:	37.720032 / 121.511609	DATE:	October 09, 2020 9:30 am

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Capay

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	20 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	20 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

Soil Map ID: 2

Soil Component Name: Water

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 3

Soil Component Name: Capay

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	20 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6
2	20 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 1.4 Min: 0.42	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 4

Soil Component Name: STOMAR

Soil Surface Texture: clay loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 153 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4
2	16 inches	46 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4
3	46 inches	59 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 8.4 Min: 7.4

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000185144	0 - 1/8 Mile SSE
A4	USGS40000185145	0 - 1/8 Mile SW
B8	USGS40000185120	1/4 - 1/2 Mile SSW
C9	USGS40000185191	1/2 - 1 Mile North
C10	USGS40000185192	1/2 - 1 Mile NNW
D14	USGS40000185094	1/2 - 1 Mile South
15	USGS40000185132	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

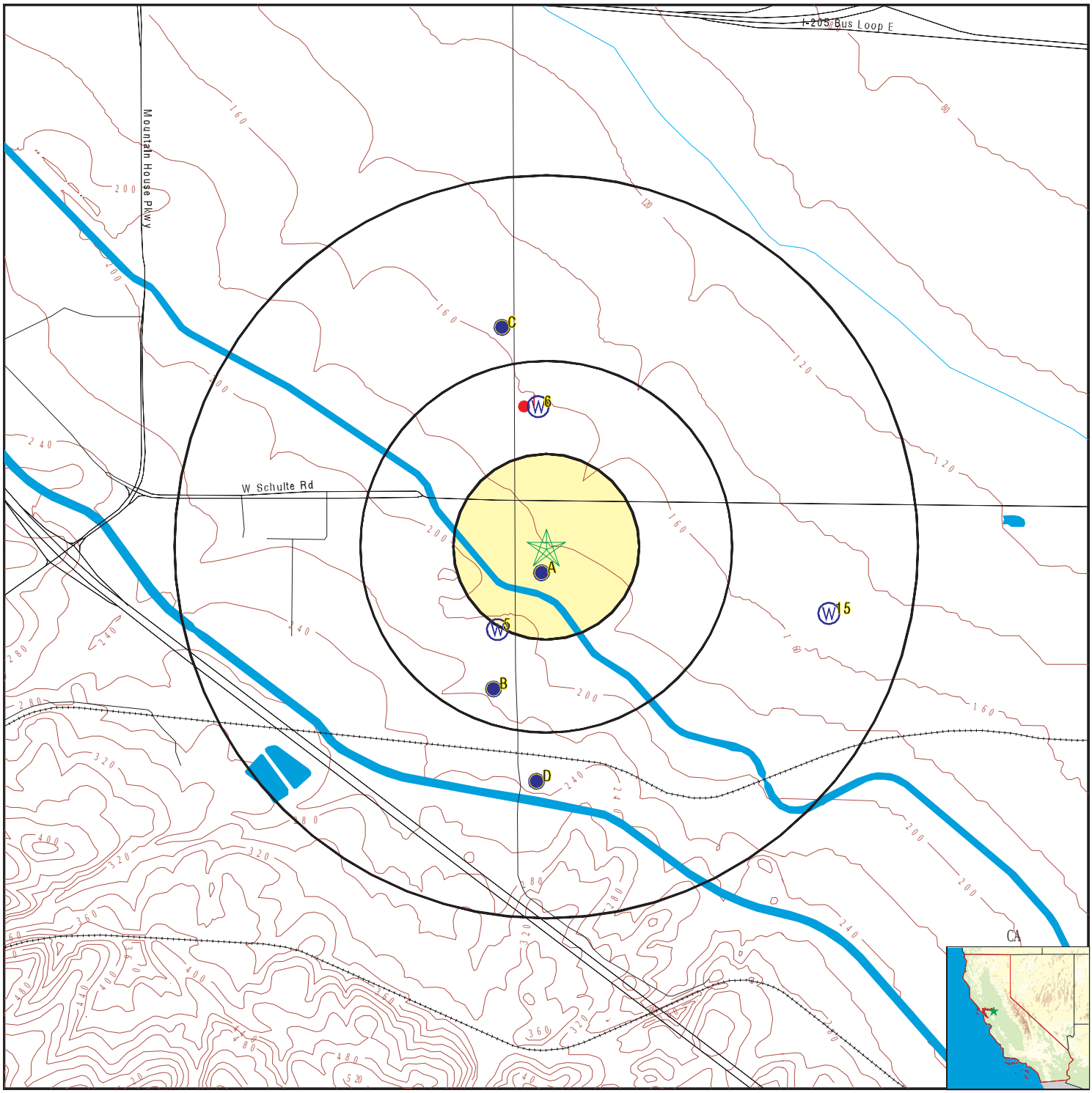
MAP ID	WELL ID	LOCATION FROM TP
A1	CADWR8000036095	0 - 1/8 Mile SSW
A3	CADWR8000036094	0 - 1/8 Mile SSE
5	CADWR8000036082	1/4 - 1/2 Mile SSW
6	CADWR8000036132	1/4 - 1/2 Mile North
B7	CADWR8000036065	1/4 - 1/2 Mile SSW
C11	CADWR8000036149	1/2 - 1 Mile NNW
C12	CADWR8000036150	1/2 - 1 Mile NNW
D13	CADWR8000036041	1/2 - 1 Mile South

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG13000008183	1/4 - 1/2 Mile North

PHYSICAL SETTING SOURCE MAP - 6221465.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	West Schulte Road	CLIENT:	ATC Group Services LLC
ADDRESS:	16286 West Schulte Road Tracy CA 95377	CONTACT:	Jim Kundert
		INQUIRY #:	6221465.2s
LAT/LONG:	37.720032 / 121.511609	DATE:	October 09, 2020 9:30 am

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
SSW
0 - 1/8 Mile
Higher

CA WELLS **CADWR8000036095**

State Well #:	02S04E35D001M	Station ID:	26538
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

A2
SSE
0 - 1/8 Mile
Higher

FED USGS **USGS40000185144**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S004E35D002M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19510101	Well Depth:	305
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

A3
SSE
0 - 1/8 Mile
Higher

CA WELLS **CADWR8000036094**

State Well #:	02S04E35D002M	Station ID:	3012
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

A4
SW
0 - 1/8 Mile
Higher

FED USGS **USGS40000185145**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S004E34A002M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19760920	Well Depth:	217
Well Depth Units:	ft	Well Hole Depth:	265
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1976-09-20
Feet below surface:	142.00	Feet to sea level:	Not Reported
Note:	Not Reported		

5
SSW
1/4 - 1/2 Mile
Higher

CA WELLS **CADWR8000036082**

State Well #:	02S04E34A001M	Station ID:	3010
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

6
North
1/4 - 1/2 Mile
Lower

CA WELLS **CADWR8000036132**

State Well #:	02S04E26M001M	Station ID:	26533
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

B7
SSW
1/4 - 1/2 Mile
Higher

CA WELLS **CADWR8000036065**

State Well #:	02S04E34H001M	Station ID:	3011
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

B8
SSW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000185120**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S004E34H001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer Type:	Not Reported	Construction Date:	19270101
Well Depth:	273	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C9
North
1/2 - 1 Mile
Lower

FED USGS **USGS40000185191**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S004E27J002M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer Type:	Not Reported	Construction Date:	19590101
Well Depth:	289	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1967-04-01
Feet below surface:	172.00	Feet to sea level:	Not Reported
Note:	Not Reported		

C10
NNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000185192**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S004E27J001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	315
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1967-04-01
Feet below surface:	180.00	Feet to sea level:	Not Reported
Note:	Not Reported		

C11
NNW
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000036149**

State Well #:	02S04E27J001M	Station ID:	3004
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C12
NNW
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000036150**

State Well #:	02S04E27J002M	Station ID:	3005
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

D13
South
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000036041**

State Well #:	02S04E35M001M	Station ID:	26539
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Tracy	Well Completion Rpt #:	Not Reported

D14
South
1/2 - 1 Mile
Higher

FED USGS **USGS40000185094**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S004E35M001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Alluvium of the Coast Range, Younger (Pleistocene-Holocene)		
Aquifer Type:	Not Reported	Construction Date:	19490101
Well Depth:	304	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1967-05-01
Feet below surface:	234.00	Feet to sea level:	Not Reported
Note:	Not Reported		

15
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000185132**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S004E35H001M	Type:	Well
Description:	Not Reported	HUC:	18040003
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Tulare Formation	Aquifer Type:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Construction Date:	19610101	Well Depth:	514
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1967-05-01
Feet below surface:	186.00	Feet to sea level:	Not Reported
Note:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
North **OIL_GAS** **CAOG13000008183**
1/4 - 1/2 Mile

API #:	0407700337	Well #:	1
Well Status:	Plugged	Well Type:	DH
Operator Name:	Richard S. Rheem, Operator		
Lease Name:	Weaver-Cordes	Field Name:	Any Field
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	08/05/1959		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
95377	4	0

Federal EPA Radon Zone for SAN JOAQUIN County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for SAN JOAQUIN COUNTY, CA

Number of sites tested: 20

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	2.530 pCi/L	90%	10%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.050 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX F

AERIAL PHOTOGRAPHS

West Schulte Road

16286 West Schulte Road

Tracy, CA 95377

Inquiry Number: 6221465.11

October 09, 2020

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

10/09/20

Site Name:

West Schulte Road
16286 West Schulte Road
Tracy, CA 95377
EDR Inquiry # 6221465.11

Client Name:

ATC Group Services LLC
1117 Lone Palm Ave-Suite B
Modesto, CA 95351
Contact: Jim Kundert

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1993	1"=500'	Acquisition Date: June 15, 1993	USGS/DOQQ
1982	1"=500'	Flight Date: July 10, 1982	USDA
1975	1"=500'	Flight Date: November 11, 1975	Cartwright
1968	1"=500'	Flight Date: May 02, 1968	USGS
1963	1"=500'	Flight Date: June 01, 1963	USDA
1957	1"=500'	Flight Date: July 15, 1957	USDA
1949	1"=500'	Flight Date: October 13, 1949	USGS
1940	1"=500'	Flight Date: June 03, 1940	USDA
1937	1"=500'	Flight Date: August 12, 1937	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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INQUIRY #: 6221465.11
YEAR: 2016
= 500'
N
EDR

INQUIRY #: 6221465.11

YEAR: 2012

= 500'

N

EDR

INQUIRY #: 6221465.11

YEAR: 2009

= 500'

N

EDR

INQUIRY #: 6221465.11

YEAR: 2006

= 500'

N

EDR

INQUIRY #: 6221465.11

YEAR: 1993

= 500'

N

EDR

INQUIRY #: 6221465.11

YEAR: 1982

= 500'

N

EDR

INQUIRY #: 6221465.11

YEAR: 1975

= 500'

N

EDR

INQUIRY #: 6221465.11

YEAR: 1968

= 500'

N

EDR

INQUIRY #: 6221465.11

YEAR: 1963

= 500'

N

EDR

INQUIRY #: 6221465.11

YEAR: 1957

= 500'

N

EDR

INQUIRY #: 6221465.11

YEAR: 1949

= 500'

N

EDR

INQUIRY #: 6221465.11

YEAR: 1940

= 500'

N

EDR

INQUIRY #: 6221465.11

YEAR: 1937

= 500'

N

EDR

APPENDIX G

HISTORICAL RESEARCH DOCUMENTATION

West Schulte Road

16286 West Schulte Road

Tracy, CA 95377

Inquiry Number: 6221465.3

October 09, 2020

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

10/09/20

Site Name:

West Schulte Road
16286 West Schulte Road
Tracy, CA 95377
EDR Inquiry # 6221465.3

Client Name:

ATC Group Services LLC
1117 Lone Palm Ave-Suite B
Modesto, CA 95351
Contact: Jim Kundert

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by ATC Group Services LLC were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 2AFE-4BDC-BB9F

PO # MOD1020

Project West Schulte

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 2AFE-4BDC-BB9F

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

ATC Group Services LLC (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

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West Schulte Road

16286 West Schulte Road

Tracy, CA 95377

Inquiry Number: 6221465.4

October 09, 2020

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

10/09/20

Site Name:

West Schulte Road
16286 West Schulte Road
Tracy, CA 95377
EDR Inquiry # 6221465.4

Client Name:

ATC Group Services LLC
1117 Lone Palm Ave-Suite B
Modesto, CA 95351
Contact: Jim Kundert

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by ATC Group Services LLC were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# MOD1020
Project: West Schulte

Coordinates:

Latitude:	37.720032 37° 43' 12" North
Longitude:	-121.511609 -121° 30' 42" West
UTM Zone:	Zone 10 North
UTM X Meters:	631175.73
UTM Y Meters:	4175795.25
Elevation:	181.00' above sea level

Maps Provided:

2012	1907
1980, 1981	
1968	
1953, 1954	
1943	
1942	
1922	
1916	

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

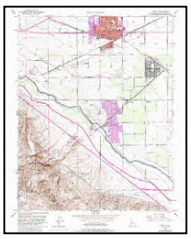
2012 Source Sheets

Midway
2012
7.5-minute, 24000

Tracy
2012
7.5-minute, 24000

1980, 1981 Source Sheets

Midway
1980
7.5-minute, 24000
Aerial Photo Revised 1978



Tracy
1981
7.5-minute, 24000
Aerial Photo Revised 1978

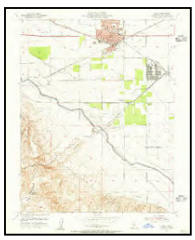
1968 Source Sheets

Midway
1968
7.5-minute, 24000
Aerial Photo Revised 1968

Tracy
1968
7.5-minute, 24000
Aerial Photo Revised 1968

1953, 1954 Source Sheets

Midway
1953
7.5-minute, 24000
Aerial Photo Revised 1950



Tracy
1954
7.5-minute, 24000
Aerial Photo Revised 1949

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1943 Source Sheets

Tesla
1943
15-minute, 62500
Aerial Photo Revised 1937

1942 Source Sheets

Altamont
1942
15-minute, 62500
Aerial Photo Revised 1937

Carbona
1942
15-minute, 62500
Aerial Photo Revised 1937

1922 Source Sheets

Carbona
1922
15-minute, 62500

1916 Source Sheets

Tracy
1916
7.5-minute, 31680

Midway
1916
7.5-minute, 31680

Topo Sheet Key

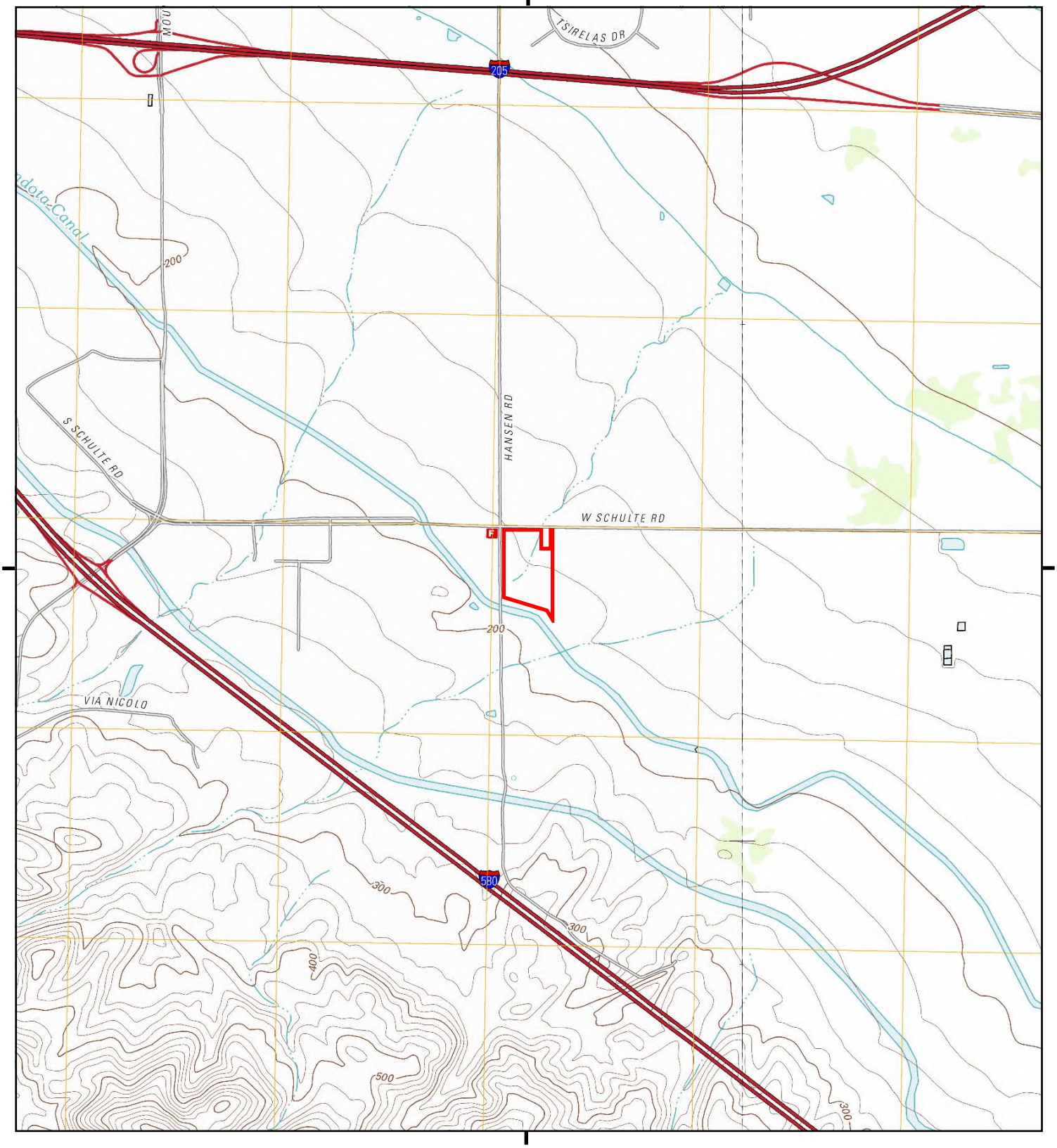
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1907 Source Sheets

Tesla
1907
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

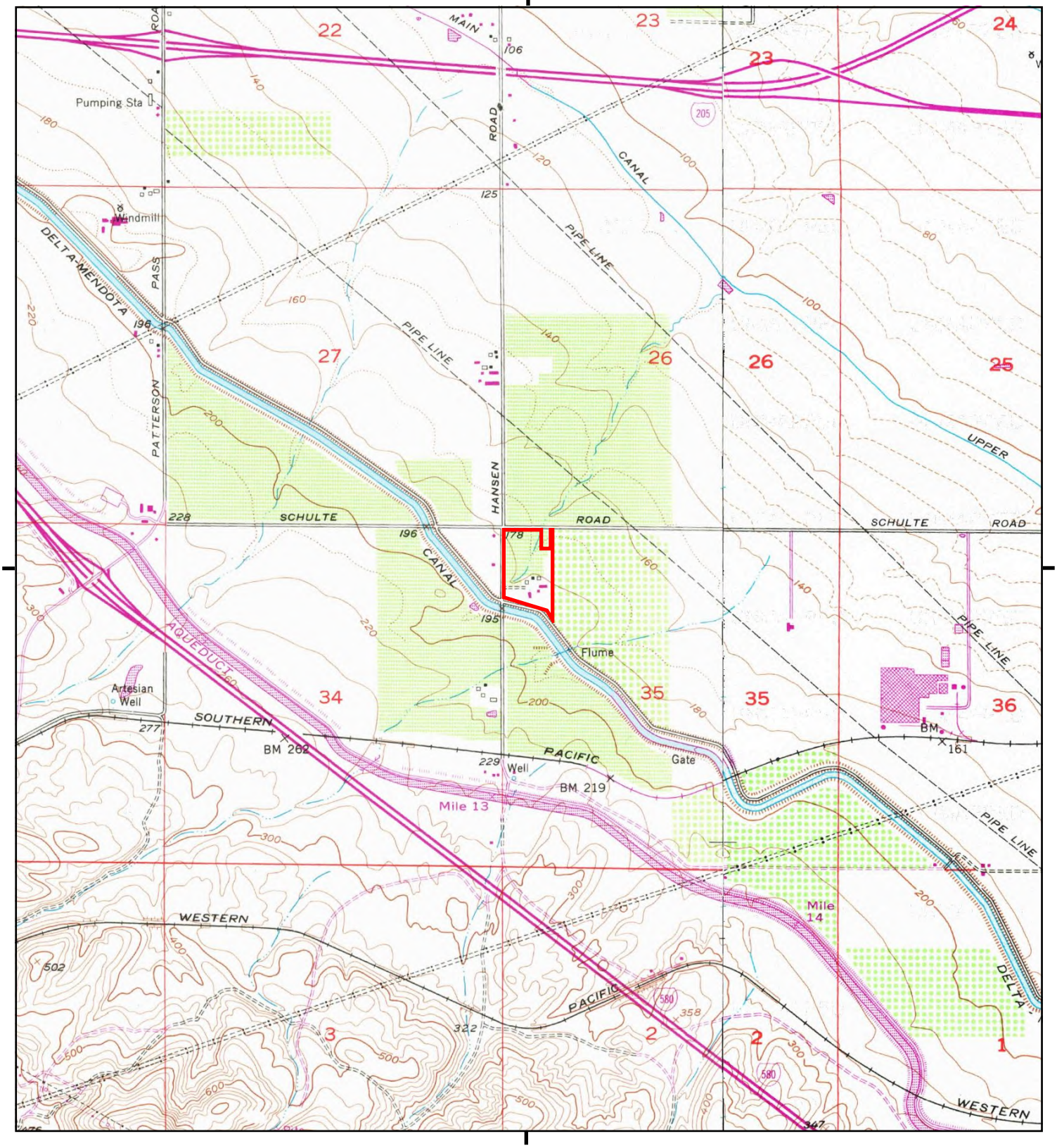
TP, Midway, 2012, 7.5-minute
SE, Tracy, 2012, 7.5-minute

SITE NAME: West Schulte Road
ADDRESS: 16286 West Schulte Road
Tracy, CA 95377
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1980, 1981



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

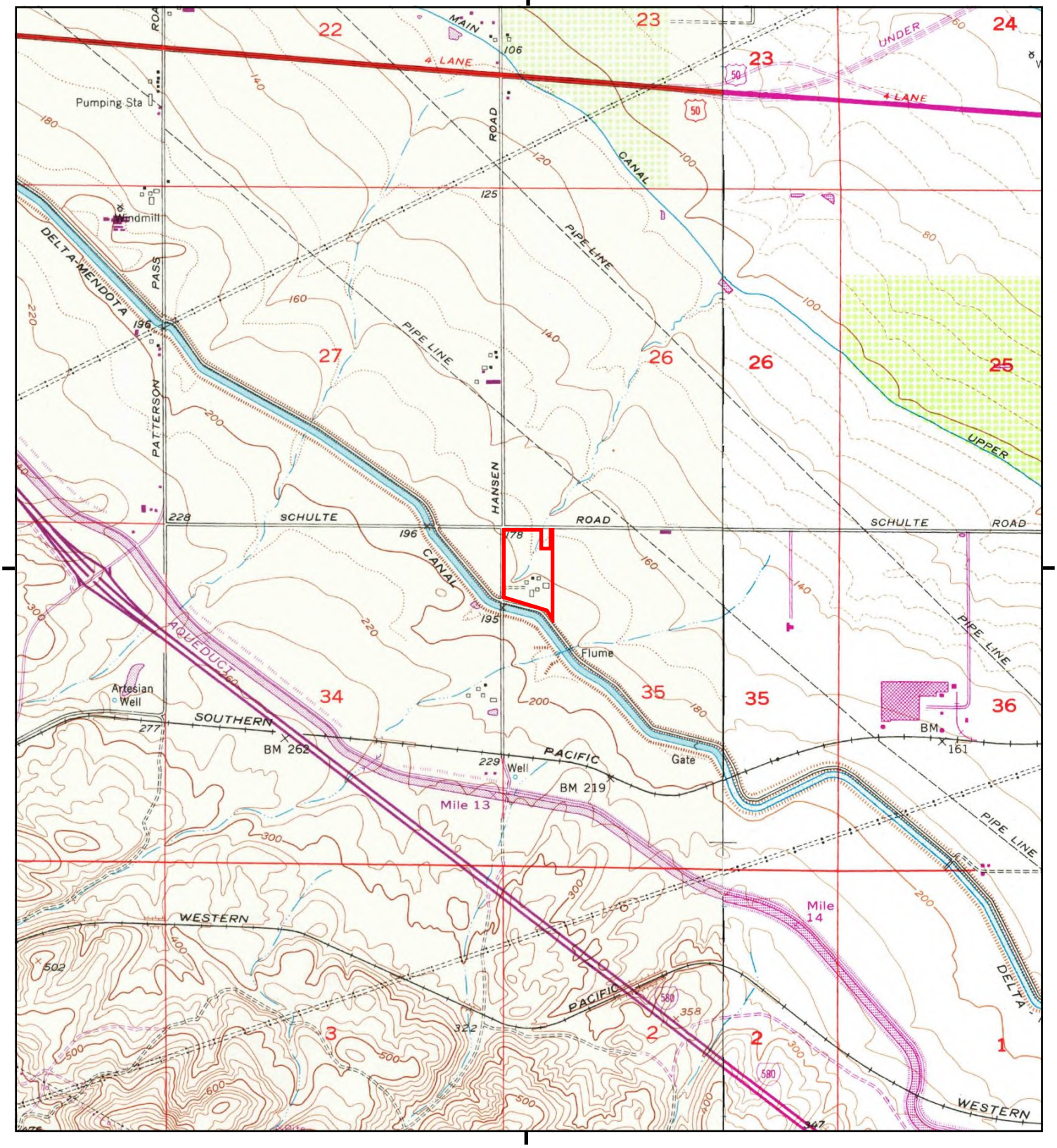
TP, Midway, 1980, 7.5-minute
SE, Tracy, 1981, 7.5-minute

SITE NAME: West Schulte Road
ADDRESS: 16286 West Schulte Road
Tracy, CA 95377
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1968



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

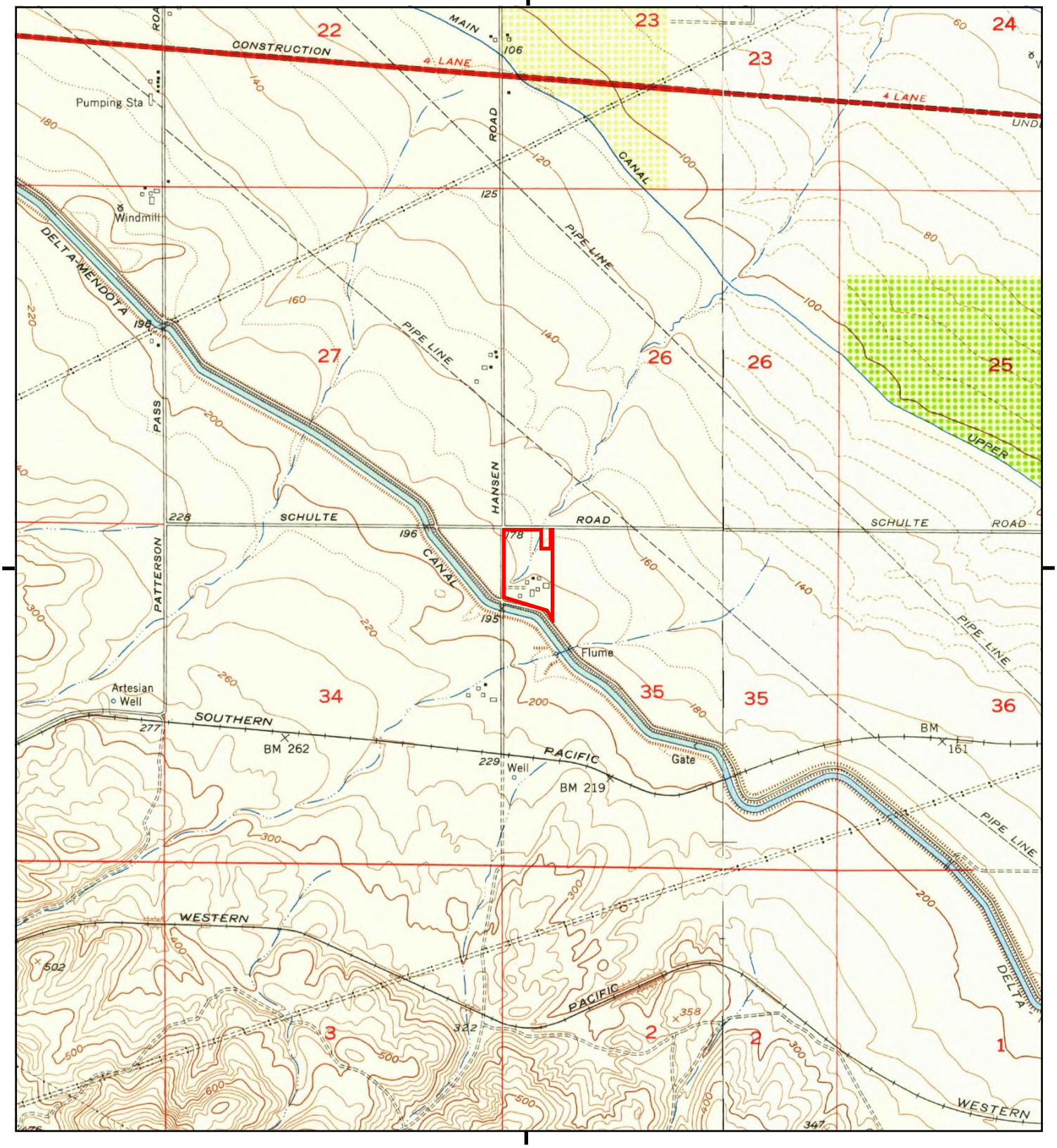
TP, Midway, 1968, 7.5-minute
SE, Tracy, 1968, 7.5-minute

SITE NAME: West Schulte Road
ADDRESS: 16286 West Schulte Road
Tracy, CA 95377
CLIENT: ATC Group Services LLC

N

Historical Topo Map

1953, 1954



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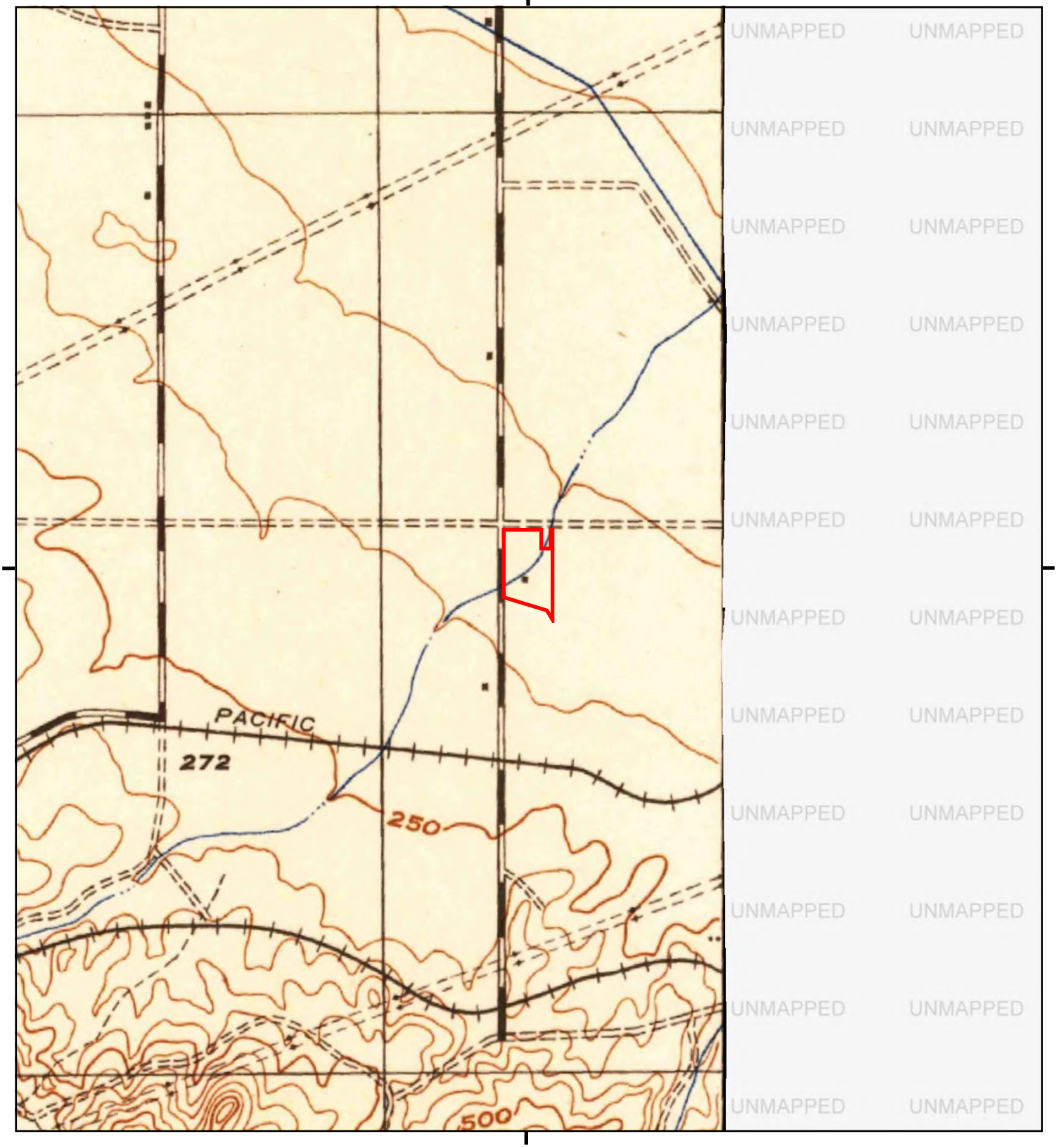
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Midway, 1953, 7.5-minute
SE, Tracy, 1954, 7.5-minute

SITE NAME: West Schulte Road
ADDRESS: 16286 West Schulte Road
Tracy, CA 95377
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

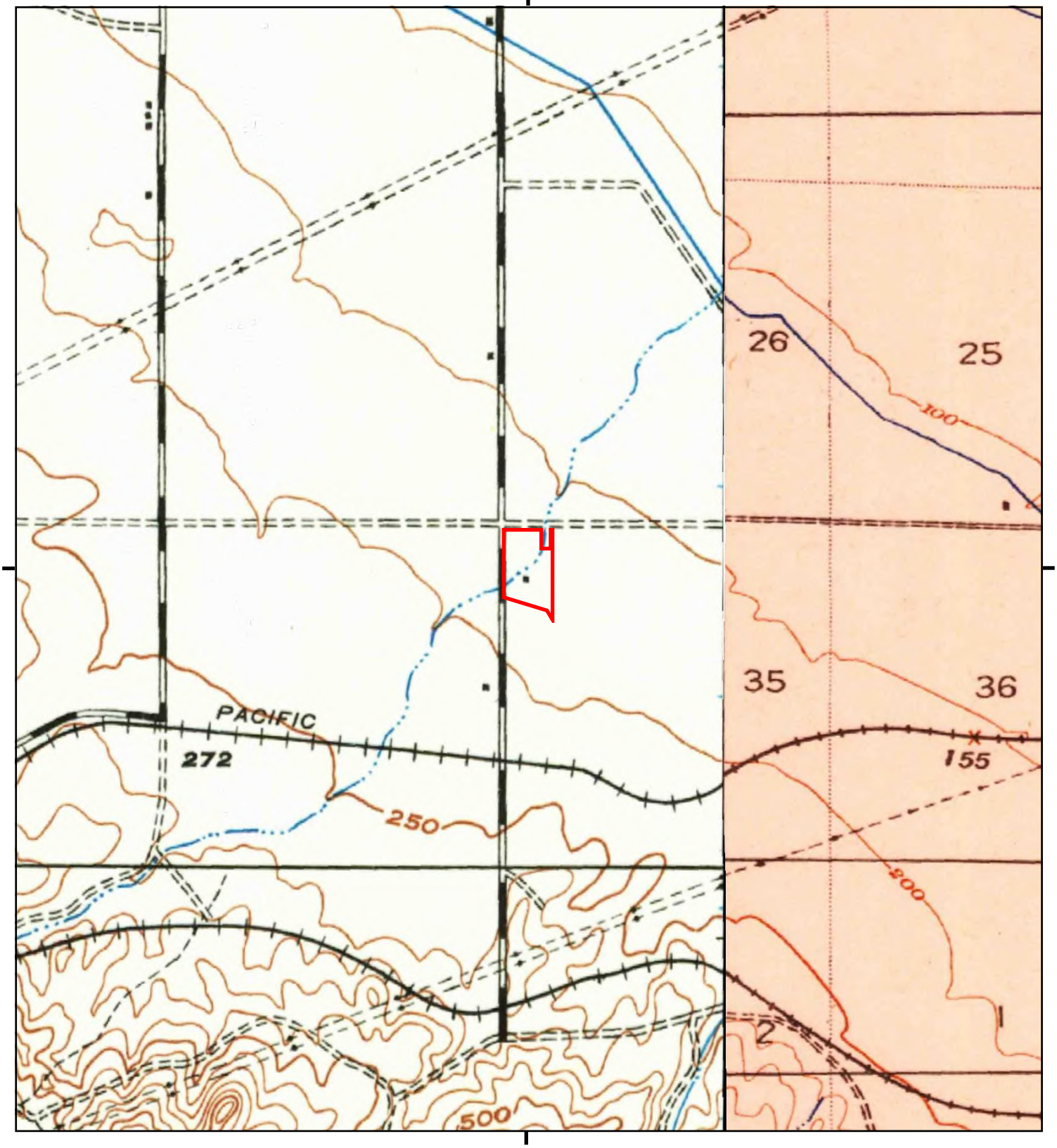
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Tesla, 1943, 15-minute

SITE NAME: West Schulte Road
ADDRESS: 16286 West Schulte Road
Tracy, CA 95377
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

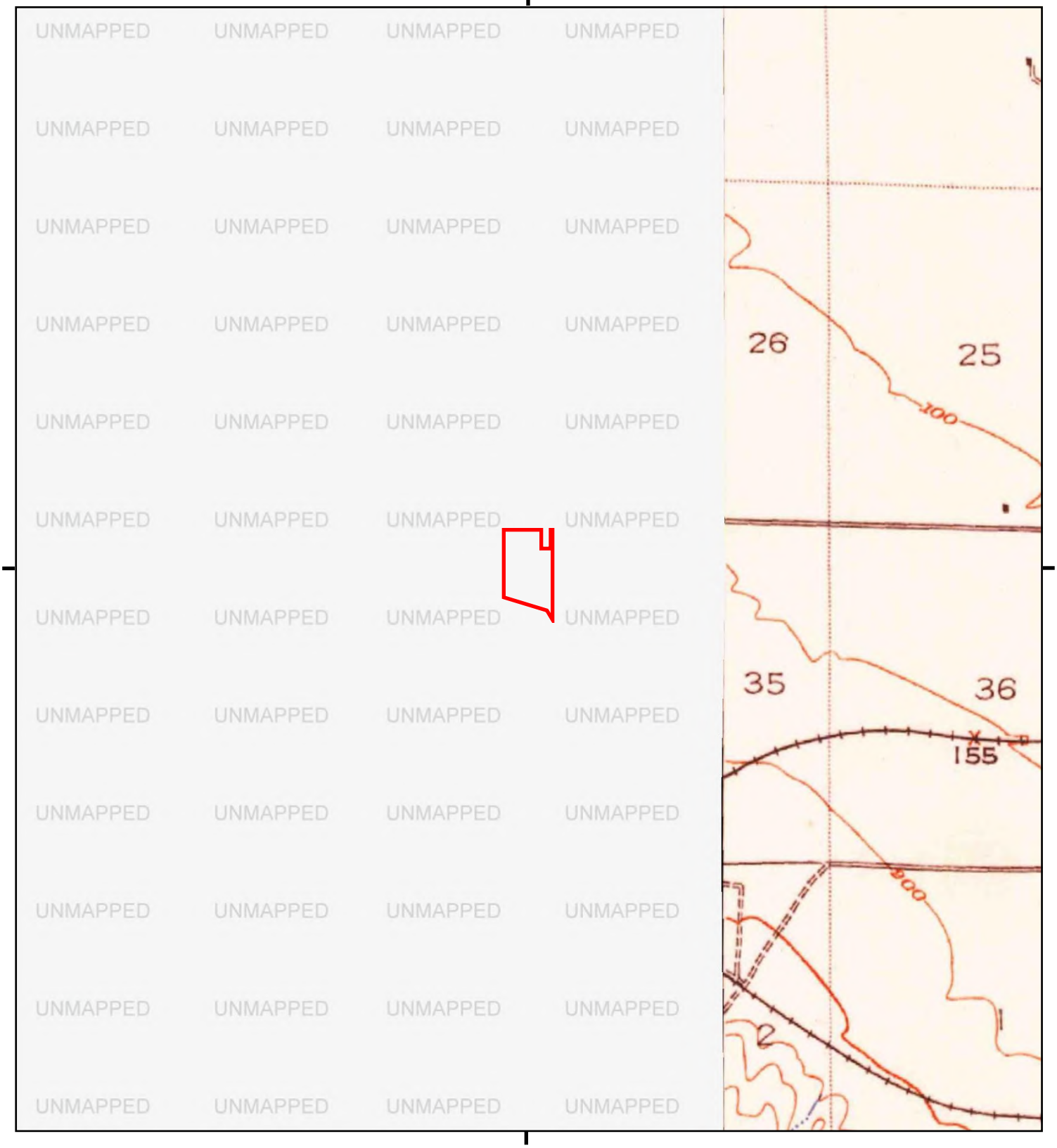
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Altamont, 1942, 15-minute
SE, Carbona, 1942, 15-minute

SITE NAME: West Schulte Road
ADDRESS: 16286 West Schulte Road
Tracy, CA 95377
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

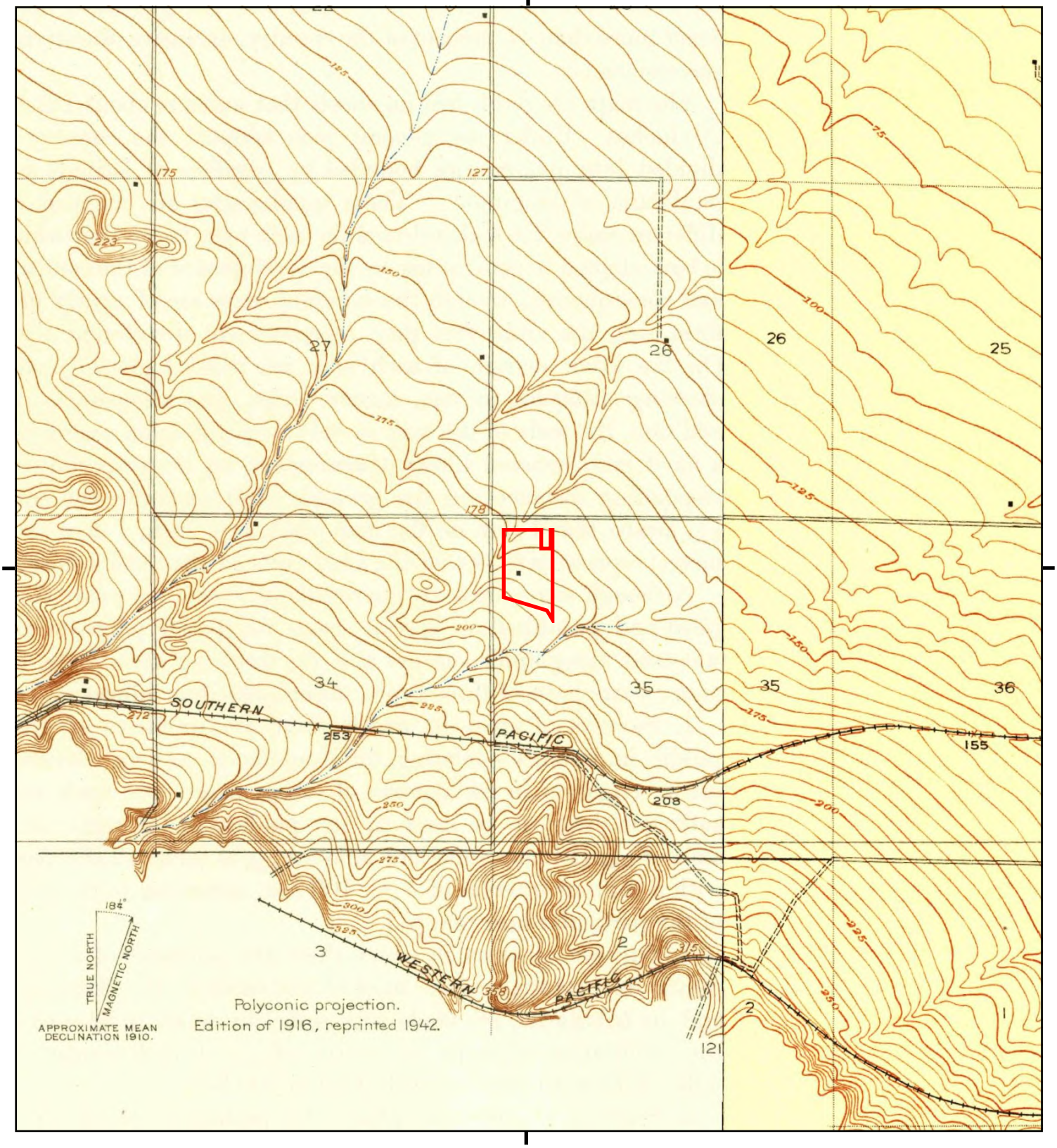
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

SE, Carbona, 1922, 15-minute

SITE NAME: West Schulte Road
ADDRESS: 16286 West Schulte Road
Tracy, CA 95377
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

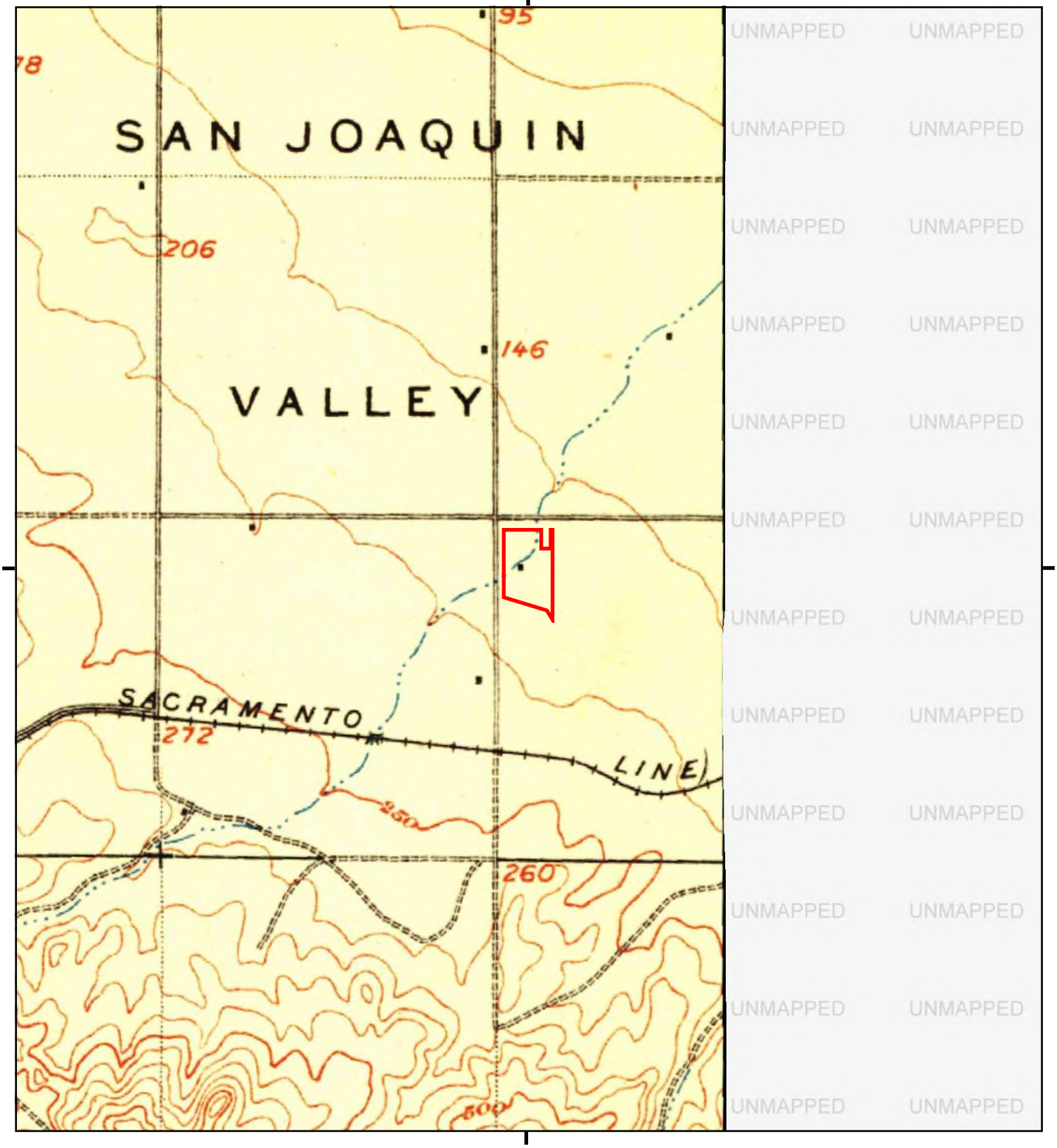
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Midway, 1916, 7.5-minute
SE, Tracy, 1916, 7.5-minute

SITE NAME: West Schulte Road
ADDRESS: 16286 West Schulte Road
Tracy, CA 95377
CLIENT: ATC Group Services LLC

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Tesla, 1907, 15-minute

SITE NAME: West Schulte Road
ADDRESS: 16286 West Schulte Road
Tracy, CA 95377
CLIENT: ATC Group Services LLC

N

West Schulte Road
16286 W Schulte Rd
Tracy, CA 95377

Inquiry Number: 6221465.5
October 12, 2020

The EDR-City Directory Image Report

Environmental Data Resources Inc
6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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City Directory Images

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

Year	Target Street	Cross Street	Source
2017	☑	☑	EDR Digital Archive
2014	☑	☑	EDR Digital Archive
2010	☑	☑	EDR Digital Archive
2005	☑	☑	EDR Digital Archive
2000	☑	☑	EDR Digital Archive
1995	☑	☑	EDR Digital Archive
1992	☑	☑	EDR Digital Archive
1985	☑	☑	Haines Criss-Cross Directory
1981	☑	☑	Haines Criss-Cross Directory
1977	☑	☑	Haines Criss-Cross Directory
1974	☑	☑	Haines Criss-Cross Directory
1971	☑	☑	Haines Criss-Cross Directory
1966	☐	☐	Polk's City Directory
1959	☐	☐	Polk's City Directory

EXECUTIVE SUMMARY

Year	Target Street	Cross Street	Source

FINDINGS

TARGET PROPERTY STREET

16286 W Schulte Rd
Tracy, CA 95377

Year	*CD Image*	*Source*	
SCHULTE RD W			
1992	pg A16	EDR Digital Archive	
W SCHULTE RD			
2017	pg A2	EDR Digital Archive	
2014	pg A5	EDR Digital Archive	
2010	pg A7	EDR Digital Archive	
2005	pg A10	EDR Digital Archive	
2000	pg A12	EDR Digital Archive	
1995	pg A14	EDR Digital Archive	
1992	pg A17	EDR Digital Archive	
1985	pg A20	Haines Criss-Cross Directory	
1981	pg A22	Haines Criss-Cross Directory	
1981	pg A23	Haines Criss-Cross Directory	
1977	pg A25	Haines Criss-Cross Directory	
1974	pg A28	Haines Criss-Cross Directory	
1971	pg A30	Haines Criss-Cross Directory	
1966	-	Polk's City Directory	Street not listed in Source
1959	-	Polk's City Directory	Street not listed in Source

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
HANSEN RD			
2017	pg. A1	EDR Digital Archive	
2014	pg. A3	EDR Digital Archive	
2010	pg. A6	EDR Digital Archive	
2005	pg. A8	EDR Digital Archive	
2000	pg. A11	EDR Digital Archive	
1995	pg. A13	EDR Digital Archive	
1992	pg. A15	EDR Digital Archive	
1985	pg. A18	Haines Criss-Cross Directory	
1985	pg. A19	Haines Criss-Cross Directory	
1981	pg. A21	Haines Criss-Cross Directory	
1977	pg. A24	Haines Criss-Cross Directory	
1974	pg. A26	Haines Criss-Cross Directory	
1974	pg. A27	Haines Criss-Cross Directory	
1971	pg. A29	Haines Criss-Cross Directory	
1966	-	Polk's City Directory	Street not listed in Source
1959	-	Polk's City Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HANSEN RD 2017

23028	MERRILL, ARIELLE N
23030	MARTINEZ, MICHEL L
23034	VALDEZ, MANUEL
23050	MOYER, PETER J
23060	STRICKLAND, SHAWN L
23063	BARTO, RYAN M
23075	AUSTIN, DANIEL T
23103	SILVA, JOSE A
23130	PETERSON, TERRY M
23134	MARTINEZ, LIBBY
23140	MARTINEZ, WINFORD C
23157	RENZI, RONALD F
23233	SILVEIRA, JOSEPH A
23250	JENSON, MATTHEW D
23275	KATARZY, JIMMIE L
23288	AMARAL, GENUINO N
23304	WONGPHIBOONRAT, GESARANEE X
23352	KLINO, LOLO K
23399	LIGGETT, TIMOTHY
23403	CHRISTENSEN, BETH A
23485	OLSON, ROBERT E
23583	VATRAN, IOAN J
23595	JARAMILLO, MARIAN
23601	CONNER, SHANE E
23607	MAKHMOUD, NASSIR
23669	SMITH, JAMES R
24080	ADAMS, JAMES A
24184	ROBLES, MORGAN R
24380	GOUVAIA, MARK A
24915	BURCIAGO, FELIX N
25730	POMBO, DAVID A
26600	PEREZ, ANGEL
26603	FOUNTAIN, KENNETH R
26666	FIELDS, JACK D
26670	TIMMINS, HAROLD L
26800	CHARONDO, GLORIA V
26820	LOPEZ, FRANK P
26901	D & S LANDSCAPING
	HANSEN, JOHN C
26955	DAVID, DAMIANA
	GATEWAY FRAMING COMPANY
27150	SWARTZLE, PAUL F
27240	GILBERT, MICHAEL J
27380	HERMOSILLO, JUAN J

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W SCHULTE RD 2017

14700	OWENS BROCKWAY GLASS CONTAINERS DIVI
	OWENSBROCKWAY GLASS CONTAINERS DIV
14800	TRACY BIOMASS PLANT
14950	GFW ENERGY LLC
16502	STATE OF CALIFORNIA
17880	COSTCO WHOLESALE

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HANSEN RD 2014

23030	NAVA, BENINO
23034	VALDEZ, MANUEL
23050	MOYER, PETER J
23063	MCCULLOUGH, RAY
23075	AUSTIN, DANIEL T
23103	SILVA, JOSE A
23130	PETERSEN, TERRY M
23134	MARTINEZ, LIBBY
23140	MARTINEZ, WINFORD C
23157	RENZI, RONALD F
23233	SILVEIRA, JOSEPH A
23250	JENSEN, GREG A
23251	OCCUPANT UNKNOWN,
23275	BUSSELL, JULIE A
23288	AMARAL, GENUINO N
	DASILVA, HERONDINA R
23301	SHIPMAN, TONY
23304	WONGPHIBOONRAT, GESARANEE X
23324	DENTON, KEVIN D
23336	LAVERGNE, LOUIS
23352	OCCUPANT UNKNOWN,
23399	LIGGETT, TIMOTHY
23403	ZAHOORI, SHAKEELA
23485	OLSON, ROBERT E
23583	OCCUPANT UNKNOWN,
23595	OCCUPANT UNKNOWN,
23597	BARROW, ROSEMARY J
23601	CONNER, KEVIN P
23607	MAKHMOUD, NASSIR
23669	SMITH, JAMES R
23928	LOPEZ, ISMAEL I
24080	ADAMS, JAMES A
24184	MENDELSOHN, CHARLES S
24322	VIERRA, PETER C
24380	GOUVAIA, MARK A
24915	BURCIAGO, FELIX N
25726	POMBO, DARA J
25730	POMBO, DAVID A
26600	PEREZ, ANGEL
26603	FOUNTAIN, KENNETH R
26666	FIELDS, JACK D
26670	TIMMINS, HAROLD L
26800	CHARONDO, GLORIA V
26820	RIVERA, VERONICA
26901	OCCUPANT UNKNOWN,
26933	HARPAINTER, PAUL C
27001	TIMMINS, HAROLD L
27150	SWARTZLE, PAUL F
27240	OCCUPANT UNKNOWN,
27380	RICHARDSON, EMILY M

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HANSEN RD 2014 (Cont'd)

27550 CAMPOS, ARMANDO

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W SCHULTE RD 2014

14700	OWENS BROCKWAY GLASS CONTAINERS DIV
	OWENS BROCKWAY GLASS CONTAINERS DIVI
14800	TRACY BIOMASS PLANT
14950	GFW ENERGY LLC
15400	DEMOULIN, WILLIAM
16502	STATE OF CALIFORNIA
17880	COSTCO WHOLESALE
	STAFFMARK

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HANSEN RD 2010

23028	YOCOM, LAWRENCE J
23030	MARTINEZ, EDDIE J
23034	VALDEZ, MANUEL
23050	MOYER, PETER J
23060	SHAVER, MARY E
23063	MORRIS, JUSTIN
23075	AUSTIN, DANIEL T
23103	SILVA, JOSE A
23130	PETERSEN, TERRY M
23134	MARTINEZ, ELSIE M
23157	RENZI, RONALD F
23233	SILVEIRA, JOSEPH A
23250	JENSON, GREGORY A
23251	KLIMENT, JAMES P
23275	SOITO, JULIE
23288	AMARAL, GENUINO N
23301	SHIPMAN, TONY
23352	RODRIGUES, ALBERT C
23399	LIGGETT, TIMOTHY
23485	OLSON, EARL P
23583	OCCUPANT UNKNOWN,
23595	LEWIS, RON E
23597	BARROW, ROSEMARY J
23601	CONNER, KEVIN P
23669	ARCE, YVONNE R
23928	QUICK, APRIL T
24080	ADAMS, JAMES A
24184	SIGVALDASON, BRANDY L
24322	VIERRA, PETER C
24380	OCCUPANT UNKNOWN,
24915	BURCIAGO, FELIX N
25730	POMBO, DAVID A
25732	OCCUPANT UNKNOWN,
26600	PEREZ, ANGEL
26603	OCCUPANT UNKNOWN,
26666	FOREMAN, MARK A
26670	IWAWAKI, KIMIYE
26800	CHARONDO, GLORIA V
26820	ALCANTAR, HERMINDA
26901	CONCRETE PRODUCTS CO
	OCCUPANT UNKNOWN,
26933	HARPAINTER, PAUL C
26955	B & D INC
27001	OCCUPANT UNKNOWN,
27140	SWARTZLE, TROY S
27150	SWARTZLE, PAUL C
27240	ECKERT, DUANE O
27380	MEJIAS, VALENTIN
27550	CAMPOS, JOSE A

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W SCHULTE RD 2010

14700	OI
14800	TRACY BIOMASS PLANT
15400	LOPEZ, JOSE D
16502	FORESTRY & FIRE PROTECTION
16900	SAFE AMERICA FEDERAL CU
	SAFEWAY
	UNIVERSAL LUMPERS
17880	COSTCO

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HANSEN RD 2005

23028 YOCOM, LAWRENCE J
23030 BENNY NAVA PLASTERING
NAVA, BENINO
23034 VALDEZ, MANUEL
23050 MOYER, PETER J
23060 CORLISS, THOMAS R
23063 MCCULLOUGH, TAGIILIM M
23075 WILLIAMS, TIMOTHY R
23103 KARL, MARK T
23130 PETERSEN, TERRY M
23134 MARTINEZ, LIBBY
23140 MARTINEZ, WINFORD C
23157 RENZI, RONALD F
23233 SILVEIRA, JOSEPH A
23250 JENSON, GREGORY A
23251 KLIMENT, JAMES P
23275 SOITO, LAVERNE J
23288 OCCUPANT UNKNOWN,
23301 BLANKENBURG, TOM
23304 RAMALHO, OCTAVIO S
23336 LAVERGNE, TERESA S
23352 RODRIGUES, ALBERT C
23399 LIGGETT, TIMOTHY
23485 OLSON, EARL P
23595 VATRAN, PETER D
23597 BARROW, R J
23607 DIRT MOVERS
OCCUPANT UNKNOWN,
23669 ARCE, YVONNE R
23928 QUICK, APRIL
24080 ADAMS, JAMES A
24184 GILLON, BHUPINDER K
SUPER PURE WATER
24322 VIERRA, PETER C
24380 GOUVAIA, MARK A
24915 OCCUPANT UNKNOWN,
25726 DAVID J POMBO
25730 POMBO, DAVID A
25732 OCCUPANT UNKNOWN,
26280 LOPEZ, FRANK P
26600 ADAMS, ELVIN R
PETAL PUSHERS
VALLEY VIEW FARMS
26603 NORRIS, PAUL
26800 CHARONDO, TONY M
26820 OTT, R
26901 CONCRETE PRODUCTS INC
OCCUPANT UNKNOWN,
26933 HARPAINTER, PAUL C
26955 PREFERRED CONCRETE SYSTEM

HANSEN RD 2005 (Cont'd)

26955 WEAVER, DAVID A
27001 HAROLD TIMMINS
OCCUPANT UNKNOWN,
27004 PANELLA, GENE
27140 SWARTZLE, TROY S
27150 SWARTZLE, PAUL C
27240 CAPRI, BRADLEY
27380 BURGOINE, ROBERT K
ROBERT BURGOINE JR
27550 CAMPOS, MARIA

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W SCHULTE RD 2005

14700	OWENS ILLINOIS
14800	TRACY OPERATORS
15400	LOPEZ, JOSE D
16900	MONUMENT SECURITY INC
	SAFEAMERICA CREDIT UNION
	SAFEWAY DISTRIBUTION CENTER
	SAFEWAY INC

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HANSEN RD 2000

23028 YOCOM, L
23030 OCCUPANT UNKNOWN,
23034 VALDEZ, MANUEL
23050 MOYER, P J
23060 CORLISS, THOMAS R
23063 MCCULLOUGH, T M
23075 OCCUPANT UNKNOWN,
23081 LEE, JOHN W
23103 KARL-BENNETT, S K
23130 OCCUPANT UNKNOWN,
23140 WEST, TIM
23157 RENZI, RONALD
23233 OCCUPANT UNKNOWN,
23250 JENSON, GREG
23251 OCCUPANT UNKNOWN,
23275 LEWIS, GEORGE C
23288 OCCUPANT UNKNOWN,
23301 RICH, MICHAEL
23304 GADOW, FRANK A
23324 LAVERGNE, LOUIS
23336 OCCUPANT UNKNOWN,
23352 CHANEY, MEL
23399 RODRIGUEZ, MONA S
23403 RICH, MICHAEL G
23485 OLSON, EARL
23595 VATRAN, PETER G
23597 ASBE, ANDREA L
24184 OCCUPANT UNKNOWN,
24322 VIERRA, PETER
24380 OCCUPANT UNKNOWN,
24504 OCCUPANT UNKNOWN,
24915 LANDRUM, SUZANNE R
24917 CORDES, DAVID
25716 POMBO, DAVID J
25726 POMBO, DAVID J
25730 POMBO, DAVID A
25732 OCCUPANT UNKNOWN,
26301 OCCUPANT UNKNOWN,
26600 ADAMS, ELVIN
VALLEY VIEW FARMS
26820 OCCUPANT UNKNOWN,
26900 ROBERTSON, F A
26955 OCCUPANT UNKNOWN,
27001 OCCUPANT UNKNOWN,
27240 OCCUPANT UNKNOWN,
27380 HERNANDEZ, PEDRO
27550 STOKLEY CONSTRUCTION SERVICE

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W SCHULTE RD 2000

12749 SERPA, TAMI L
14700 OWENS BROCKWAY GLASS CONTAINERS DIVISION OF OWENS ILLINOIS I
RAM MOUNTAIN CONTRACTING
14800 TRACY BIOMASS PLANT
16900 SAFEAMERICA FEDERAL CREDIT UNION
SAFEWAY FOOD & DRUG
SPECIALIZED DISTRIBUTION MANAGEMENT INCORPORATED

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HANSEN RD 1995

23028	YOCOM, L
23030	YOCOM, L
23034	VALDEZ, MANUEL
23075	BEAUMONT, RICK
23103	MICHAEL, R
23130	HERSPRING, DAVID L
23140	WEST, TIM
23157	HARVEY, P A
23233	BROXTERMAN, ROD
23250	JENSON, GREG
23275	BLOCK, ROBERT A
23288	OCCUPANT UNKNOWNN
23301	GILLEAN, C
23304	PETERSEN, WALTER
23336	OCCUPANT UNKNOWNN
23352	CHANEY, ELAINE D
23399	WITTLER, STACEY D
23403	RICH, MICHAEL G
23485	OLSON, EARL
23595	VATRAN, PETER G
23597	BARROW, DELBERT
24184	LANCASTER, DONALD R
24322	VIERRA, PETER
24380	LIMA, JOSE C
24915	OCCUPANT UNKNOWNN
24917	CORDES, DAVID
25726	POMBO, DAVID J
25730	POMBO, DAVID A
25732	POMBO, DELLO
26600	MEAD, GREGG
26603	HARPER, NERA G
26800	OCCUPANT UNKNOWNN
26820	KLECKNER, FRANK
26900	ROBERTSON, F A
26901	OCCUPANT UNKNOWNN
26955	OCCUPANT UNKNOWNN
27150	SWARTZLE, BARBARA
27240	ECKERT, DUANE
27380	HERNANDEZ, PEDRO
	RICHARDSON, BOB
27550	STOKLEY, MARY

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W SCHULTE RD 1995

12780 TRIAD WATER SYSTEMS INTL INC
WALKABOUT PARTNERS
16900 SPECIALIZED DISTRIBUTION MGMT
WRIGHT, EDGAR

Target Street	Cross Street	Source
-	✓	EDR Digital Archive

HANSEN RD 1992

23050	LUNA, ROBERT C
23233	BROXTERMAN, ROD
23250	JENSON, GREG
23288	CARBIS, ALAN
23301	RICH, MICHAEL
23304	MCCAMEY, JASON
	PETERSEN, K
23336	LAVERGNE, LOUIS
23399	MILLER, STEVEN
23485	OLSON, EARL
23597	BARROW, DELBERT
24080	MCDONALD, JOHN A
24184	LANCASTER, DONALD R
24380	LIMA, JOSE C
24917	CORDES, DAVID
25726	POMBO, DAVID
25730	POMBO, DAVID A
25732	POMBO, DELLO
26151	POMBO, ROBERT L
26600	BURANIS MIKE TRCKNG
	BURANIS, MICHAEL
26820	SPERANZA, HENRY
26900	ROBERTSON, F A
27150	SATER, ROBERT E
27240	ECKERT, DUANE
27380	HERNANDEZ, PEDRO
	RICHARDSON, BOB

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SCHULTE RD W 1992

14700 OWENS IL INC ACCNTS
14800 TRACY BIOMASS PLANT
16900 E A HATHAWAY&CO
L&S GENL CONTRS

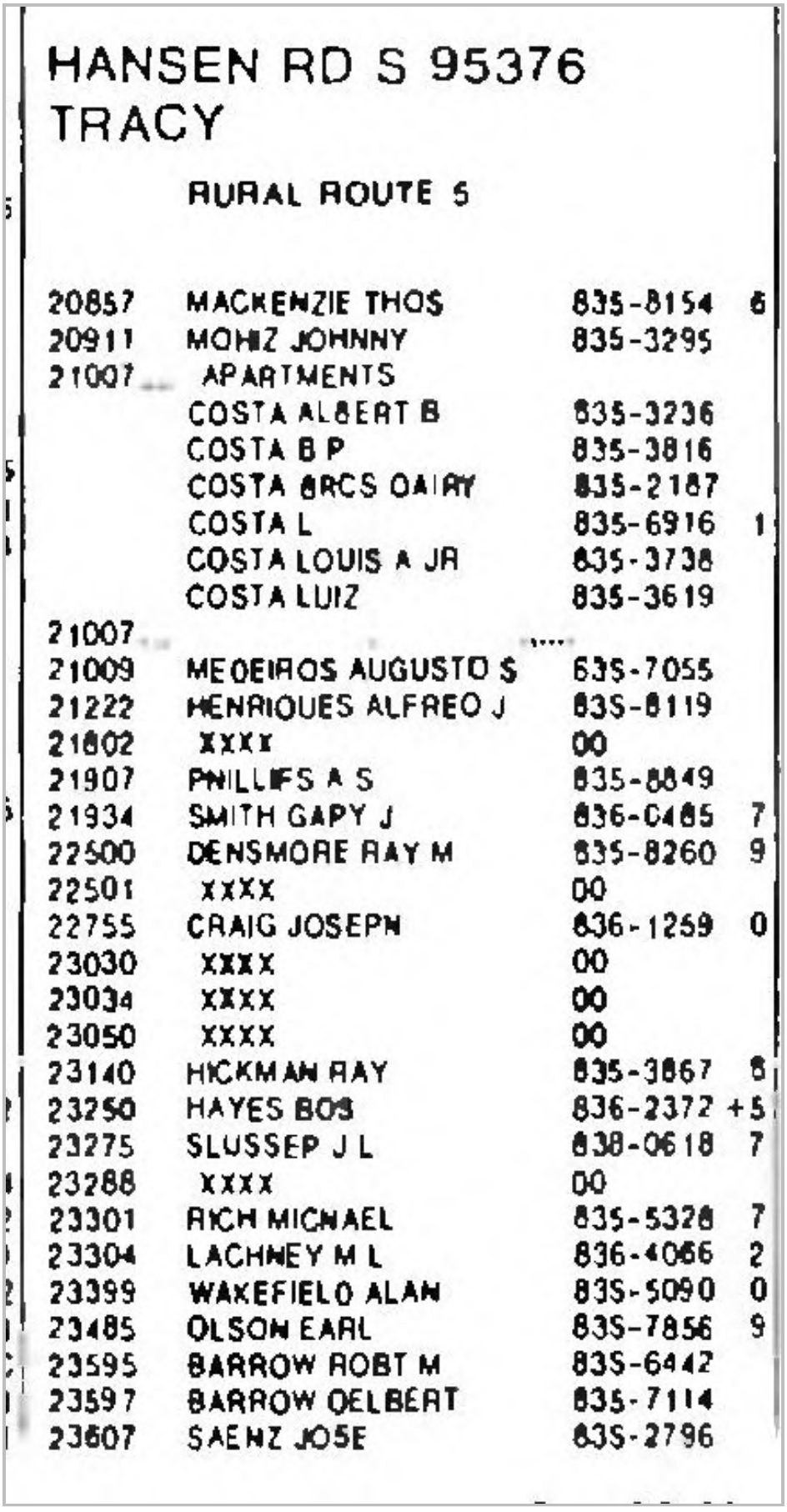
Target Street	Cross Street	Source
✓	-	EDR Digital Archive

W SCHULTE RD 1992

12680 JUAREZ, MIGUEL
12780 TRIAD WATER SYSTEMS
WALKABOUT PARTNERS
16502 RODERICK, JOHN

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

HANSEN RD 1985



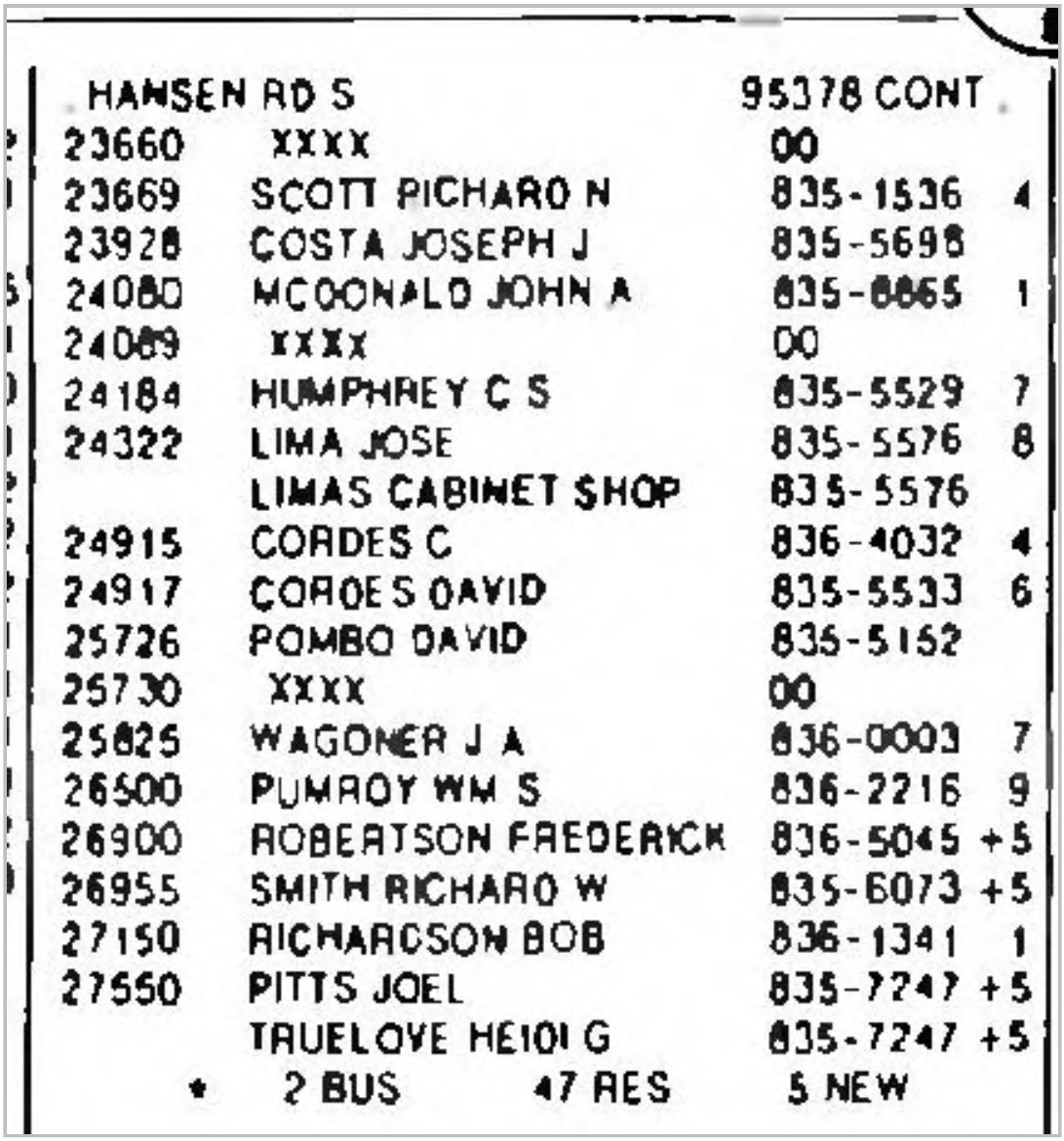
HANSEN RD S 95376
TRACY

RURAL ROUTE 5

20857	MACKENZIE THOS	835-8154	6
20911	MOHIZ JOHNNY	835-3295	
21007	APARTMENTS		
	COSTA ALBERT B	835-3236	
	COSTA B P	835-3816	
	COSTA BROS DAIRY	835-2187	
	COSTA L	835-6916	1
	COSTA LOUIS A JR	835-3738	
	COSTA LUIZ	835-3619	
21007			
21009	MEDEIROS AUGUSTO S	835-7055	
21222	HENRIQUES ALFREO J	835-8119	
21802	XXXX	00	
21907	PHILLIPS A S	835-8849	
21934	SMITH GARY J	836-0485	7
22500	DENSMORE RAY M	835-8260	9
22501	XXXX	00	
22755	CRAIG JOSEPH	836-1259	0
23030	XXXX	00	
23034	XXXX	00	
23050	XXXX	00	
23140	HICKMAN RAY	835-3867	8
23250	HAYES BOB	836-2372	+5
23275	SLUSSER J L	838-0618	7
23288	XXXX	00	
23301	RICH MICHAEL	835-5328	7
23304	LACHNEY M L	836-4066	2
23399	WAKEFIELD ALAN	835-5090	0
23485	OLSON EARL	835-7856	9
23595	BARROW ROBT M	835-6442	
23597	BARROW GELBERT	835-7114	
23607	SAENZ JOSE	835-2796	

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

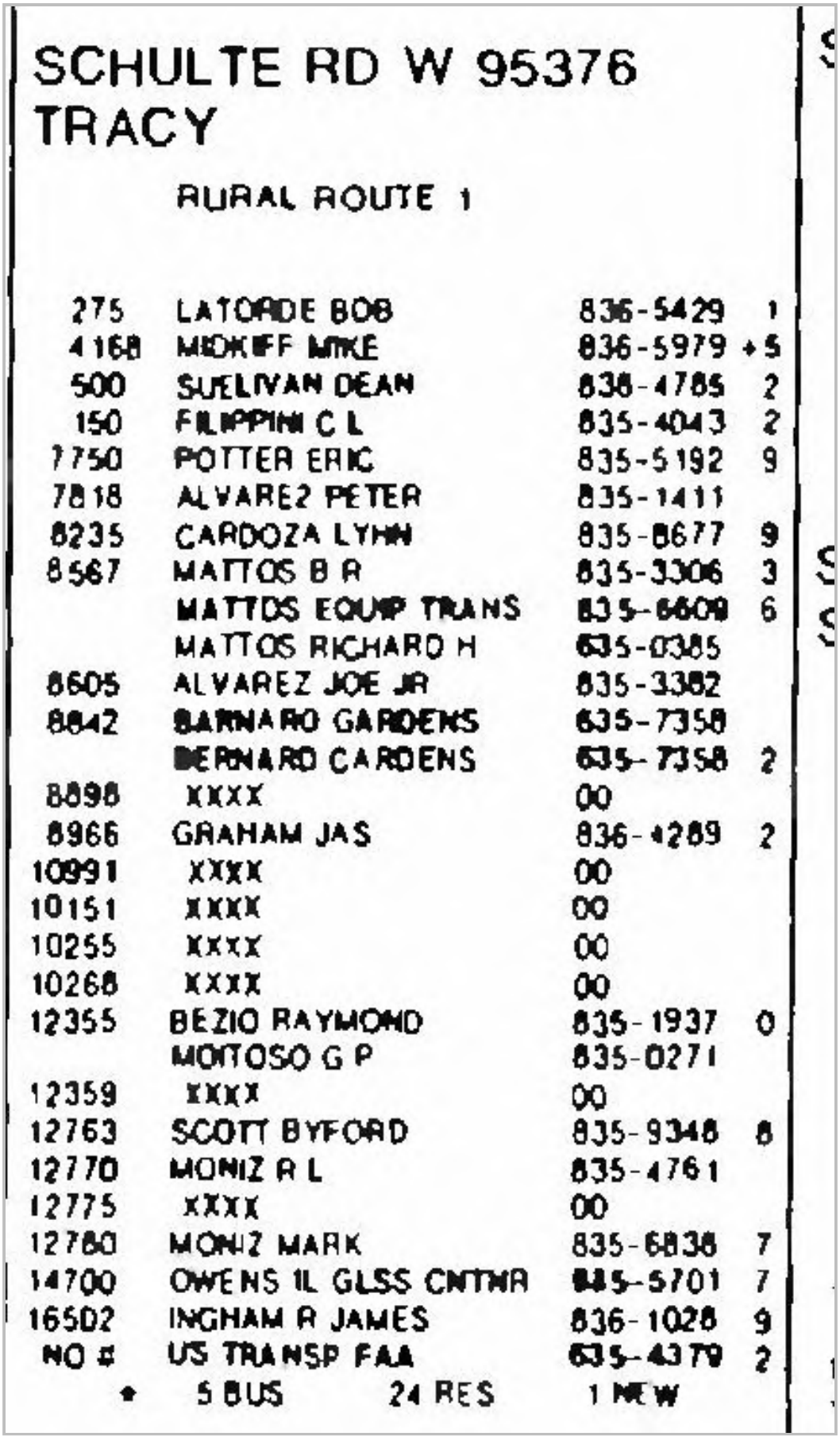
HANSEN RD 1985



HANSEN RD S		95378 CONT	
23660	XXXX	00	
23669	SCOTT RICHARD N	835-1536	4
23928	COSTA JOSEPH J	835-5698	
24080	MCDONALD JOHN A	835-8865	1
24089	XXXX	00	
24184	HUMPHREY C S	835-5529	7
24322	LIMA JOSE	835-5576	8
	LIMAS CABINET SHOP	835-5576	
24915	CORDES C	836-4032	4
24917	CORDES DAVID	835-5533	6
25726	POMBO DAVID	835-5152	
25730	XXXX	00	
25825	WAGONER J A	836-0003	7
26500	PUMROY WM S	836-2216	9
26900	ROBERTSON FREDERICK	836-5045	+5
26955	SMITH RICHARD W	835-6073	+5
27150	RICHARDSON BOB	836-1341	1
27550	PITTS JOEL	835-7247	+5
	TRUELOVE HEIDI G	835-7247	+5
*	2 BUS 47 RES	5 NEW	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

W SCHULTE RD 1985



SCHULTE RD W 95376
TRACY

RURAL ROUTE 1

275	LATORRE BOB	836-5429	1
4168	MOKIFF MIKE	836-5979	•5
500	SULLIVAN DEAN	838-4785	2
150	FILIPPINI C L	835-4043	2
7750	POTTER ERIC	835-5192	9
7818	ALVAREZ PETER	835-1411	
8235	CARDOZA LYNN	835-8677	9
8567	MATTOS B R	835-3306	3
	MATTOS EQUIP TRANS	835-6609	6
	MATTOS RICHARD H	835-0385	
8605	ALVAREZ JOE JR	835-3382	
8842	BARNARD GARDENS	835-7358	
	BERNARD CARDENS	835-7358	2
8898	XXXX	00	
8966	GRAHAM JAS	836-4289	2
10991	XXXX	00	
10151	XXXX	00	
10255	XXXX	00	
10268	XXXX	00	
12355	BEZIO RAYMOND	835-1937	0
	MONTOSO G P	835-0271	
12359	XXXX	00	
12763	SCOTT BYFORD	835-9348	8
12770	MONIZ R L	835-4761	
12775	XXXX	00	
12780	MONIZ MARK	835-6838	7
14700	OWENS IL GLSS CNTNR	835-5701	7
16502	INGHAM R JAMES	836-1028	9
NO #	US TRANSP FAA	835-4379	2

• 5 BUS 24 RES 1 NEW

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

HANSEN RD 1981

HANSEN RD S 95376
TRACY

RURAL ROUTE 5

20764	MANN ROBT G	836-1880	+1
20857	MACKENZIE THOS	835-6154	6
20911	MONIZ JOHNNY	835-3295	2
21007	APARTMENTS		
	COSTA ALBERT B	835-3236	
	COSTA B R	835-5816	
	COSTA BROS DAIRY	835-2167	
	COSTA L	835-6916	+1
	COSTA LOUIS A JR	835-3738	
	COSTA LUIZ	835-3819	
21007			
21009	MEDEIROS AUGUSTO S	835-7065	5
21222	HENRIQUES ALFRED J	835-8119	
21602	ROMO NORMA	836-3203	0
21907	PHILLIPS A S	835-8849	
21934	SMITH GARY J	836-0485	7
22500	DENSMORE RAY M	835-6260	9
22501	XXXX	00	
22755	CRAIG JOSEPH	836-1259	0
23030	XXXX	00	
23034	XXXX	00	
23050	XXXX	00	
23140	HICKMAN RAY	835-3867	8
23275	SLUSSER J L	836-0618	7
23301	RICH MICHAEL	835-5328	7
23399	WAKEFIELD ALAN	835-5090	0
23485	OLSON EARL	835-7656	9
23595	BARROW L C	835-5575	
	BARROW ROBT M	835-6442	
23597	BARROW DELBERT	835-7114	
23607	SAENZ JOSE	835-2796	4
23660	XXXX	00	
23669	XXXX	00	
23928	COSTA JOSEPH J	835-5698	
24080	MCDONALD JOHN A	835-8865	+1
24089	XXXX	00	
24184	HUMPHREY C S	835-5529	7
24322	LIMA JOSE	835-5576	5
	LIMAS CABINET SHOP	835-5576	8
24915	ANDERSEN MINNIE	835-0769	
24917	CORDES DAVID	835-5533	6
25726	POMBO DAVID	835-5152	
25730	POMBO DAVID A	836-5941	+1
25825	WAGONER J A	836-0003	7
26600	PUMROY WM S	836-2216	9
26955	SMITH RICHARD W	835-6419	8
27150	RICHARDSON BOB	836-1341	+1

★ 2 BUS 43 RES 5 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

W SCHULTE RD 1981

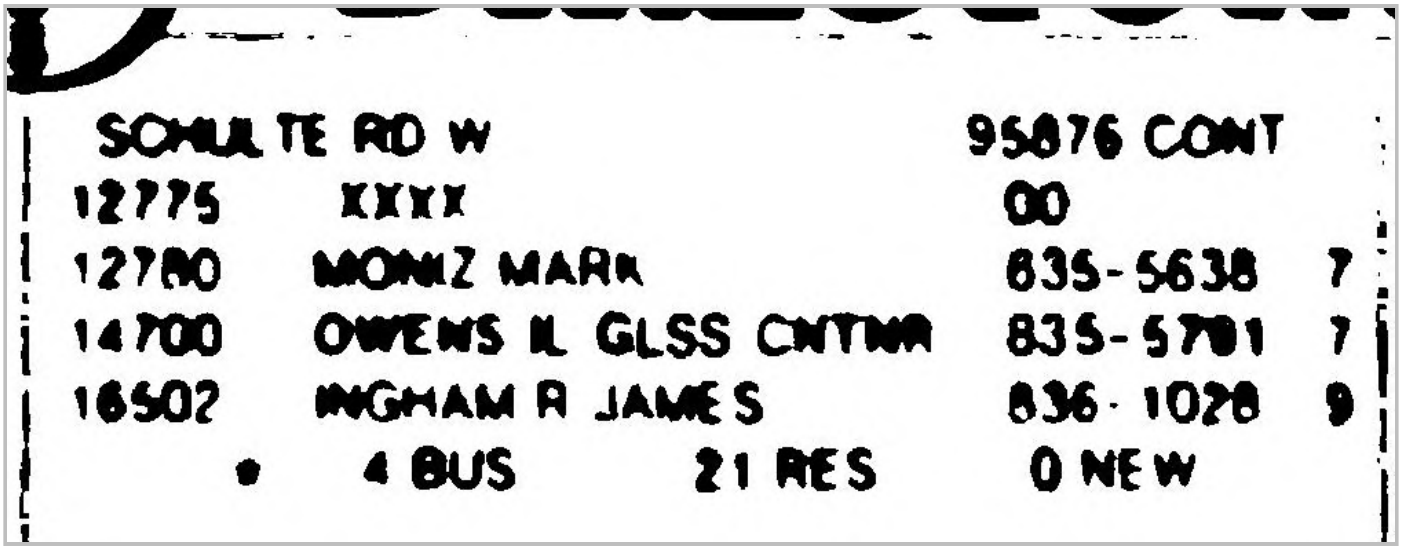
SCHULTE RD W 95376
TRACY

RURAL ROUTE 1

7750	POTTER ERIC	835-5192	9
7818	ALVAREZ PETER	835-1411	
8235	CARDOZA LYNN	835-8677	9
8567	MATTOS B R	835-0306	3
	MATTOS EQUIP TRANS	835-6609	6
	MATTOS RICHARD N	835-0385	
8606	ALVAREZ JOE JR	835-3082	
8842	XXXX	00	
8898	BARNARD GARDENS	835-7358	2
	BERNARD GARDENS	835-7356	2
8966	SEREDNI IVANO	835-2918	0
9940	FILIPPINI C L	835-4043	
10091	XXXX	00	
10151	XXXX	00	
10255	XXXX	00	
10268	XXXX	00	
12355	BEZIO RAYMOND	835-1937	0
	MOITOSO G P	835-0271	
12359	XXXX	00	
12763	SCOTT BYFORD	835-9348	8
12770	MONIZ R L	835-4761	

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

W SCHULTE RD 1981



SCHULTE RD W 95876 CONT

12775	XXXX	00	
12780	MONIZ MARK	835-5638	7
14700	OWENS IL GLSS CNTNR	835-5701	7
16502	INGHAM R JAMES	836-1028	9

4 BUS 21 RES 0 NEW

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

HANSEN RD 1977

HANSEN RD S 95376 TRACY

RURAL ROUTE 5

20764	XXXX	00
20857	MACKENZIE THOS	835-8154 6
20911	MONIZ JOHNNY	835-3295 2
21007	...COSTA BROS DAIRY	
	COSTA ALBERT B	835-3236
	COSTA B R	835-3816
	*COSTA BROS DAIRY	835-2187
	COSTA LOUIS A JR	835-3738
	COSTA LUIZ	835-3619
21007	.....	
21009	MEDEIROS AUGUSTO S	835-7055 5
21222	HENRIQUES ALFRED J	835-8119
21907	PHILLIPS A S	835-8849
21934	SMITH GARY J	836-0485+7
22501	COCKRUM B	835-0813+7
23030	JENSEN JAS J	835-7698+7
23034	HANCE WARREN G	835-1380+7
23050	XXXX	00
23275	SLUSSER J L	836-0618+7
23301	RICH MICHAEL	835-5328+7
23485	MELLO ROBT	835-2289 5
23595	BARROW L C	835-5575
	BARROW ROBT M	835-6442
23597	BARROW DELBERT	835-7114
23607	SAENZ JOSE	835-2796 4
23660	MACHADO MARY	835-2300
23669	CRIPPIN DAVID	835-3445+7
23730	MORRIS LARRY E	835-7454+7
23928	COSTA JOSEPH J	835-5698
24080	MCDONALD JOHN A	835-8865 5
24184	HUMPRHEY C S	835-5529+7
24322	LIMA JOSE	835-5576 5
24915	ANDERSEN MINNIE	835-0769
24917	CORDES DAVID	835-5533 6
25726	POMBO DAVID	835-5152
	SMITH RONNIE R	835-5097 3
25825	WAGONER J A	836-0003+7
27550	XXXX	00

* 1 BUS 35 RES 10 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

W SCHULTE RD 1977

SCHULTE RD W 95376 TRACY

RURAL ROUTE 1

7750	POTTER MELODY	835-7649+7
7818	ALVAREZ PETER	835-1411
8235	XXXX	00
8567	MATTOS B R	835-0306 3
	*MATTOS EQPMT TRNSP	835-6609 6
	MATTOS RICHARD N	835-0385
8606	ALVAREZ JOE JR	835-3082
8842	XXXX	00
8898	*BARNARD GARDENS	835-7358 2
	*BERNARD GARDENS	835-7358 2
8966	XXXX	00
9940	FILIPPINI C L	835-4043
10091	BLACK HOWARD P	835-3625 3
10255	XXXX	00
10268	AYALA JESS JR	835-3473
12355	MOITOSO G P	835-0271
12359	VILLAGOMEZ EUSEBIO	835-1255
12770	MONIZ R L	835-4761
12775	XXXX	00
12780	MONIZ MARK	835-5838+7
14700	*BLOOM CHAS CNSTRUCT	836-0069+7
	*COLLINS ELECTRIC	836-0825+7
	*HALLANGER ENGINEER	835-8750+7
	*OWENS ILL FIELD OFC	835-7376+7
	*OWENS ILL GLASS	835-5701+7
	*SCHULER GEO F INC	836-0291+7
	*SWINERTON & WALBERG	835-5466+7
16502	HALLSWORTH EDMOND	836-0741+7
NO #	*U S GOVT TRANSPORTN	835-4379 2
	* 11 BUS 18 RES 10 NEW	

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

HANSEN RD 1974

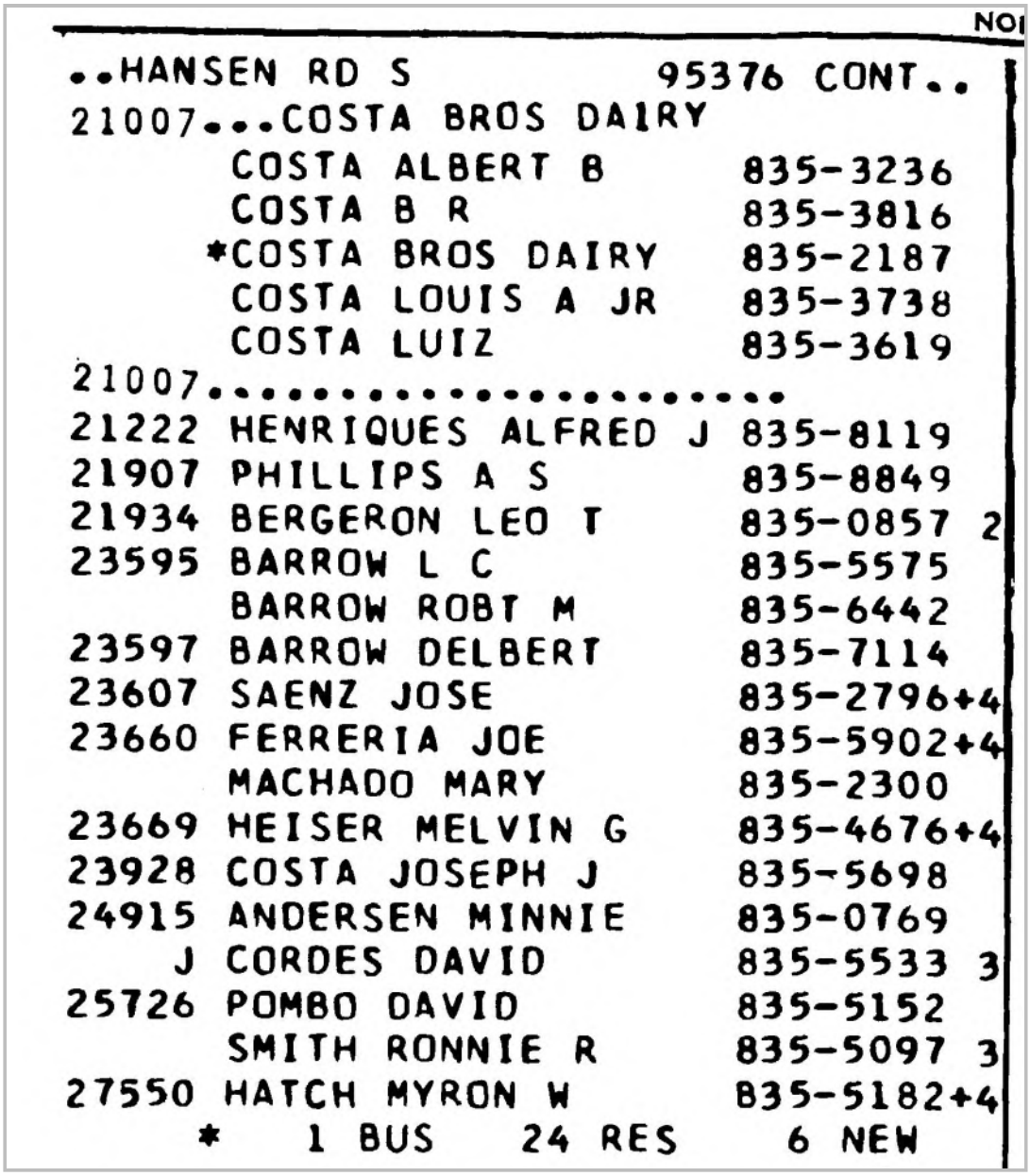
HANSEN RD S 95376 TRACY

RURAL ROUTE 5

20764	GRUBB CLEATUS	835-6121+4
	JOHNSON S R	835-6121+4
20857	XXXX	00
20911	MONIZ JOHNNY	835-3295 2

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

HANSEN RD 1974



NOI

..HANSEN RD S 95376 CONT..

21007	...COSTA BROS DAIRY	
	COSTA ALBERT B	835-3236
	COSTA B R	835-3816
	*COSTA BROS DAIRY	835-2187
	COSTA LOUIS A JR	835-3738
	COSTA LUIZ	835-3619
21007	.....	
21222	HENRIQUES ALFRED J	835-8119
21907	PHILLIPS A S	835-8849
21934	BERGERON LEO T	835-0857 2
23595	BARROW L C	835-5575
	BARROW ROBT M	835-6442
23597	BARROW DELBERT	835-7114
23607	SAENZ JOSE	835-2796+4
23660	FERRERIA JOE	835-5902+4
	MACHADO MARY	835-2300
23669	HEISER MELVIN G	835-4676+4
23928	COSTA JOSEPH J	835-5698
24915	ANDERSEN MINNIE	835-0769
J	CORDES DAVID	835-5533 3
25726	POMBO DAVID	835-5152
	SMITH RONNIE R	835-5097 3
27550	HATCH MYRON W	835-5182+4

* 1 BUS 24 RES 6 NEW

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

W SCHULTE RD 1974

SCHULTE RD W 95376 TRACY

RURAL ROUTE 1

7750	POTTER ERIC	835-5445+4
7818	ALVAREZ PETER	835-1411
8567	MATTOS B R	835-0306 3
	MATTOS RICHARD N	835-0385
8606	ALVAREZ JOE JR	835-3082
8842	XXXX	OO
8898	*BARNARD GARDENS	835-7358 2
	*BERNARD GARDENS	835-7358 2
8966	XXXX	OO
9940	FILIPPINI C L	835-4043
10091	BLACK HOWARD P	835-3625 3
10255	LOURENCE JOE M JR	835-4917
10268	AYALA JESS JR	835-3473
12355	MOITOSO G P	835-0271
12359	VILLAGOMEZ EUSEBIO	835-1255
12770	MONIZ R L	835-4761
14700	*OWEN ILLINOIS GLASS	835-5701 2
NO #	*U S GOVT TRANSPORTN	835-4379 2

* 4 BUS 14 RES 1 NEW

Target Street	Cross Street	Source
-	✓	Haines Criss-Cross Directory

HANSEN RD 1971

HANSEN RD S 95376 TRACY

20764	HOLCK DON	835-5139
20857	CHAPMAN KENNETH E	835-3944
20911	FERRY I M	835-1294
	FERRY ROSEMARY	835-1294
	GIGLEY AGNES	835-1294
21007	....COSTA BROS DAIRY	
	COSTA ALBERT B	835-3236
	COSTA B R	835-3816
	*COSTA BROS DAIRY	835-2187
	COSTA LOUIS A JR	835-3738
	COSTA LUIZ	835-3619
21007	.....	
21222	HENRIQUES ALFREO J	835-8119
21907	PHILLIPS A S	835-8849
23595	BARROW L C	835-5575
	BARROW ROBT M	835-6442
23597	BARROW DELBERT	835-7114
23607	HEISER MELVIN G	835-4676
23660	MACHADO MARY	835-2300
23669	RUBBERT BOB M	835-6515
23928	COSTA JOSEPH J	835-5698
24915	ANDERSEN MINNIE	835-0769
25726	POMBO DAVID	835-5152
NO #	HART EVERETT	835-7934

* 1 BUS 21 RES

Target Street	Cross Street	Source
✓	-	Haines Criss-Cross Directory

W SCHULTE RD 1971

8567	MATTOS BARBARA	835-0784
	MATTOS RICHARD N	835-0385
8606	ALVAREZ JOE JR	635-3082
8842	KEE THELMA	835-0417
8898	BARNARD LEO H	835-7358
8966	BRISTOW BILL	835-7309
9940	FILIPPINI C L	835-4043
10091	SILVA JOS P	835-3263
10255	LOURENCE JOE M JR	835-4917
10268	AYALA JESS JR	835-3473
12355	MOITOSO G P	835-0271
12359	VILLAGOMEZ EUSEBIO	835-1255
12770	MONIZ R L	835-4761

* 0 BUS 15 RES

West Schulte Road
16286 West Schulte Road
Tracy, CA 95377

Inquiry Number: 6221465.6
October 09, 2020

The EDR Property Tax Map Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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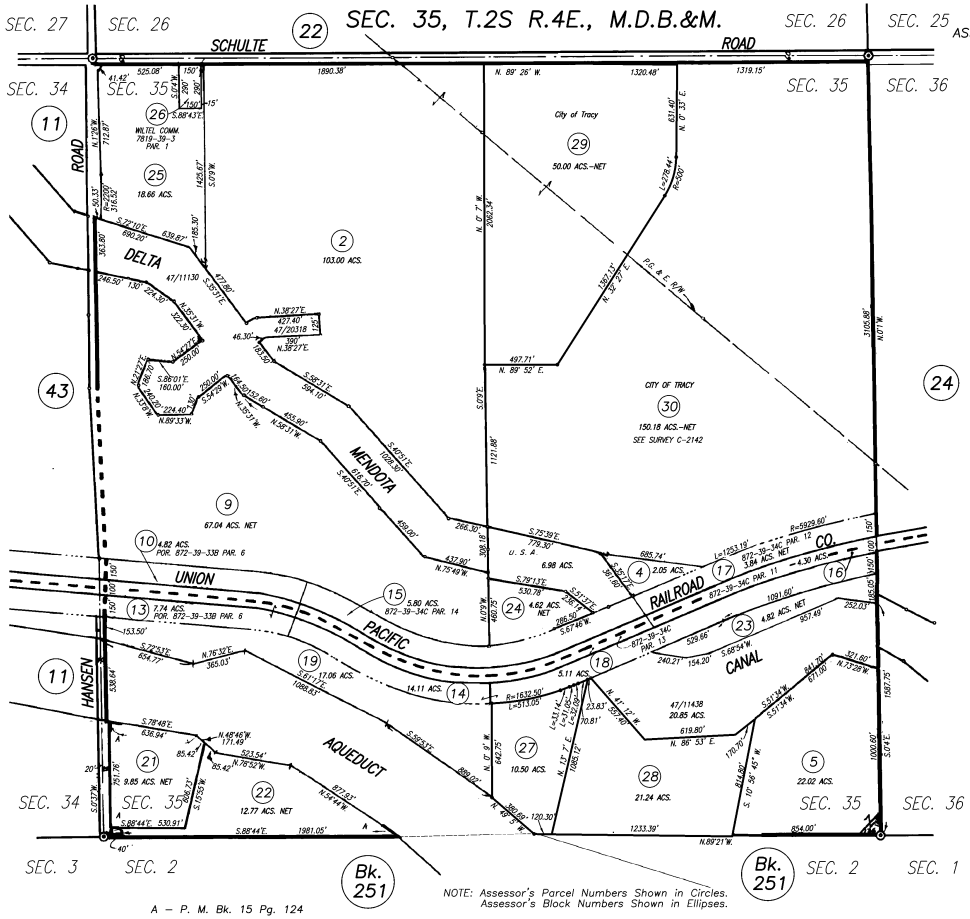

THIS MAP IS FOR ASSESSMENT USE ONLY

209–23

1" = 600'

HIGHEST A.P.N. USED			
YEAR	PAR. #	PAR. #	PAR. #
87-88	20		
88-89	22		
90-91	24		
01-02	26		
05-06	28		
08-09	30		

Assessor's Map Bk.209 Pg.23
County of San Joaquin, Calif.

NOTE: Assessor's Parcel Numbers Shown in Circles.
Assessor's Block Numbers Shown in Ellipses.

A – P. M. Bk. 15 Pg. 124

West Schulte Road
16286 West Schulte Road
Tracy, CA 95377

Inquiry Number: 6221465.8
October 09, 2020

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX® PROPERTY HISTORY

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of ATC Group Services LLC on Oct 09, 2020.

TARGET PROPERTY

16286 West Schulte Road
Tracy, CA 95377

SEARCH METHODS

EDR searches available lists for both the Target Property and Surrounding Properties.

RESEARCH SUMMARY

Building permits identified: **NO PERMITS IDENTIFIED**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Name: JurisdictionName
Years: Years
Source: Source
Phone: Phone

BUILDING DEPARTMENT RECORDS SEARCHED

Name: Livermore
Years: 1988-2020
Source: City of Livermore, Community Devlopment, Building Department, LIVERMORE, CA
Phone: (925) 960-4410

Name: Redding
Years: 1926-2020
Source: City of Redding, Development Services, Building Division, OAKLAND, CA
Phone: 530-225-4014

Name: San Joaquin County
Years: 1987-2020
Source: San Joaquin County, Permits and Licenses, TRACY, CA
Phone: (209) 468-3124

Name: Tracy
Years: 1990-2020
Source: City of Tracy, Building Division, Tracy, CA
Phone: (209) 831-6400

TARGET PROPERTY FINDINGS

TARGET PROPERTY DETAIL

16286 West Schulte Road
Tracy, CA 95377

No Permits Found

ADJOINING PROPERTY FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

No Permits Found

GLOSSARY

General Building Department concepts

- **ICC:** The International Code Council. The governing body for the building/development codes used by all jurisdictions who've adopted the ICC guidelines. MOST of the US has done this. Canada, Mexico, and other countries use ICC codes books and guides as well. There are a few states who have added guidelines to the ICC codes to better fit their needs. For example, California has added seismic retrofit requirements for most commercial structures.
- **Building Department (Permitting Authority, Building Codes, Inspections Department, Building and Inspections):** This is the department in a jurisdiction where an owner or contractor goes to obtain permits and inspections for building, tearing down, remodeling, adding to, re-roofing, moving or otherwise making changes to any structure, Residential or Commercial.
- **Jurisdiction:** This is the geographic area representing the properties over which a Permitting Authority has responsibility.
- **GC:** General Contractor. Usually the primary contractor hired for any Residential or Commercial construction work.
- **Sub:** Subordinate contracting companies or subcontractors. Usually a "trades" contractor working for the GC. These contractors generally have an area of expertise in which they are licensed like Plumbing, Electrical, Heating and Air systems, Gas Systems, Pools etc. (called "trades").
- **Journeymen:** Sub contractors who have their own personal licenses in one or more trades and work for different contracting companies, wherever they are needed or there is work.
- **HVAC (Mechanical, Heating & Air companies):** HVAC = Heating, Ventilation, and Air Conditioning.
- **ELEC (Electrical, TempPole, TPole, TPower, Temporary Power, Panel, AMP Change, Power Release):** Electrical permits can be pulled for many reasons. The most common reason is to increase the AMPs of power in an electrical power panel. This requires a permit in almost every jurisdiction. Other commons reason for Electrical permits is to insert a temporary power pole at a new construction site. Construction requires electricity, and in a new development, power has yet to be run to the lot. The temporary power pole is usually the very first permit pulled for new development. The power is released to the home owner when construction is complete and this sometimes takes the form of a Power Release permit or inspection.
- **"Pull" a permit:** To obtain and pay for a building permit.
- **CBO:** Chief Building Official
- **Planning Department:** The department in the development process where the building /structural plans are reviewed for their completeness and compliance with building codes
- **Zoning Department:** The department in the development process where the site plans are reviewed for their compliance with the regulations associated with the zoning district in which they are situated.
- **Zoning District:** A pre-determined geographic boundary within a jurisdiction where certain types of structures are permitted / prohibited. Examples are Residential structure, Commercial/Retail structures, Industrial/Manufacturing structures etc. Each zoning district has regulations associated with it like the sizes of the lots, the density of the structures on the lots, the number of parking spaces required for certain types of structures on the lots etc.
- **PIN (TMS, GIS ID, Parcel#):** Property Identification Number and Tax Map System number.
- **State Card (Business license):** A license card issued to a contractor to conduct business.
- **Building Inspector (Inspector):** The inspector is a building department employee that inspects building construction for compliance to codes.
- **C.O.:** Certificate of Occupancy. This is the end of the construction process and designates that the owners now have permission to occupy a structure after its building is complete. Sometimes also referred to as a Certificate of Compliance.

GLOSSARY

Permit Content Definitions

- Permit Number: The alphanumerical designation assigned to a permit for tracking within the building department system. Sometimes the permit number gives clues to its role, e.g. a "PL" prefix may designate a plumbing permit.
- Description: A field on the permit form that allows the building department to give a brief description of the work being done. More often than not, this is the most important field for EP's to find clues to the prior use(s) of the property.
- Permit Type: Generally a brief designation of the type of job being done. For example BLDG-RES, BLDG-COM, ELEC, MECH etc.

Sample Building Permit Data

Date: Nov 09, 2000
Permit Type: Bldg -
New Permit Number: 101000000405
Status: Valuation: $1,000,000.00
Contractor Company: OWNER-BUILDER
Contractor Name:

Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

APPENDIX H

PRIOR REPORTS

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APPENDIX I

RESUMES

JAMES R. KUNDERT
Staff Geologist

PROFESSIONAL SUMMARY

Mr. Kundert has experience performing Phase I Environmental Site Assessments (ESAs), Transaction Screen Assessments (TSAs), vapor extraction and air sparge pilot testing, sensitive receptor surveys, soil gas risk assessment, level and lot-line surveying, small-scale seismic surveying, monitoring reports and subsurface investigations including monitoring well installation and abandonment and direct push borings.

PROJECT EXPERIENCE

- **Modified Environmental Site Assessments and FCC-Required Environmental Compliance Studies / Telecommunications Sector / CA**. Performed over 20 Modified Phase I ESAs or FCC-required environmental compliance studies in support of telecommunication service expansion and antenna placement.

- **Environmental Site Assessments / Agricultural, Residential, Commercial, and Industrial Sectors / Northern CA**. Performed ASTM-compliant ESAs in support of pending real estate transactions for various clients including Arnaiz Development Co., The Bascom Group, and Jack-in-the-Box. Completed two Phase I ESAs for segments of a former military base undergoing civilian repurposing.

- **Environmental Site Assessments / Transportation Sector / Northern & Central CA**. Performed 134 ASTM-compliant ESAs in support of pending transportation corridor land acquisition for the California High Speed Rail project.

- **Transaction Screen Assessments / Residential and Commercial Sectors / Northern and Central CA**. Performed and/or managed ASTM-compliant TSAs.

- **Electronic Reporting Compliance / Residential, Commercial, and Industrial Sectors / Northern and Central CA**. Maintained and managed client compliance with California State electronic reporting requirements for LUFT and SLIC sites associated with the State Water Resources Control Board's GeoTracker database.

- **Phase II - Soil Screening Sampling / Rural and Agricultural Sectors / Northern CA**. Performed agricultural soil sampling for pesticide and herbicide screening and farm UST due diligence.

- **Investigative, Monitoring, and Remediation Well Installation / Commercial and Industrial Sectors / Northern and Central CA**. Supervised investigative boring and monitoring and remediation well installation at various commercial and industrial UST case sites, including active and former commercial fueling stations, bulk fuel facilities, farm sites, and other fuel using industrial sites.

- **Groundwater Monitoring / Commercial and Industrial Sectors / Northern CA**. Performed groundwater monitoring activities in accordance with scheduled monitoring events designed to evaluate groundwater contamination at petroleum service stations and industrial facilities.

- **Soil Gas Risk Assessment / Commercial Sectors / Northern CA**. Performed installation, sampling, and data assessment of soil vapor risks to surface structures associated with UST cases.

- **Soil Excavation, Anderson's Pea Soup, Santa Nella, CA**. Supervised soil excavation activities at a former gasoline station where gasoline and diesel impacted soil was excavated, evaluated, transported, stored, and treated at an off site location under regulatory oversight.

- **Soil Excavation, Gabbert Lumber, Sacramento, CA**. Supervised soil excavation activities at a former on-site fuel depot where gasoline and diesel impacted soil was excavated, evaluated, transported, and disposed of at a California permitted disposal site.

- **Environmental Site Assessments / Cricket Wireless / Central CA**. Conducted Environmental Site Assessments on five commercial and/or agricultural properties in Central California. Projects were in support of client's program for placement of telecommunication antennas.

- **Well Installation / City of Gustine / Gustine, CA**. Field Geologist, responsible for the installation of groundwater monitoring wells as part of an ongoing UST management program at the City's Maintenance Yard.

- **Groundwater Modeling / Fayette Manufacturing / Tracy, CA**. Performed computer modelling utilizing Bioscreen to support closure data.

- **Seismic Surveying / RMC Pacific Materials / Wheatland, CA**. Performed shallow deposits survey data collection and analysis using a portable seismic rig.

- **Property Line Relocation Surveying / RMC Pacific Materials / Felton, CA**. Relocated internal property markers at a sand quarry.

EDUCATION

- B.S. Geology, San Jose State University, San Jose, California, 1990

TRAINING AND CERTIFICATIONS

- Hazardous Waste Ops. & Emergency Response (CFR 1910.120/GISO 5192 OSHA)
- 16-Hour Microbial Investigation, Assessments and Remediation in the Indoor Environment, #MO-088, 2002

Hillary R. Williams

National Client Manager

Branch Location

- ATC National Programs
  Burlington, New Jersey

Education

- BS Environmental Management, Rochester Institute of Technology, Rochester, New York, 2002
- Certificate in Environmental Law & Regulation, University of Washington, Seattle, Washington, 2014

Specialized Training

- OSHA 40 Hour Health and Safety Training for Hazardous Waste Operations (HAZWOPER) (2001 - present)
- EPA AHERA-Certified Building Inspector (2007 - present)
- EPA AHERA-Certified Project Designer (2008 - 2015)
- First Aid, CPR & AED Certified (2011 - 2017)
- Washington State Site Assessor - Underground Storage Tank (2010 - 2012)
- Thermo NITON XRF Analyzer Training Course (2008)
- Washington Department of Ecology, Certified Erosion & Sediment Control Lead (CESCL), #63499, 2013 - 2016

ATC Start Date

- February 2007

Hillary is a National Client Manager in ATC's National Programs Group. She serves as a direct contact and liaison for various ATC National Programs clients and is responsible for project & client management at a national level including: due diligence investigations (Phase I ESAs, PCAs, and Phase II ESAs), subsurface investigations and remedial actions, hazardous materials management, industrial hygiene projects, and regulatory compliance projects. Ms. Williams engages local branches to perform environmental projects for ATC National Programs clients and tracks the status of the projects from the proposal development stage through invoicing stage. Her management tasks for national clients include compilation of scopes of work, preparation of cost proposals, senior review of technical documents and project deliverables, project portfolio management, project status updates, and client relationship management.

Areas of Expertise

- Client & Project Management
- Environmental Due Diligence
- Aboveground Storage Tank/Underground Storage Tank Management Services
- Hazardous Materials Assessments (asbestos, lead, PCB, mold)
- Phase I and II Site Assessment Services
- Remediation Services
- Stormwater Pollution Prevention Plan Services/Permits/Compliance
- Spill Prevention Services/Plans

Project Experience

ATC Market Sector

National Real Estate & Financial Services Clients, Environmental Services Client & Project Management - Nationwide

Project Role: Communicates and coordinates with ATC's National Programs client contacts regarding technical issues and project management of ATC services for various environmental services projects nationwide. Projects include Phase I ESAs, PCAs, Transaction Screens, baseline Phase II ESAs, SPCC Plans, hazardous building materials management, regulatory compliance, stormwater compliance, indoor air quality/mold, radon, lead paint/water, underground storage tank management, soil/groundwater characterization, remediation, and regulatory site closure. Perform technical review and oversight on client projects.

Various National Real Estate & Financial Clients, Portfolio Due Diligence - Nationwide

Project Role: Provides portfolio management at a national level for multi-site projects for Phase I ESAs, PCAs, and/or Transaction Screens. Multiple portfolio projects have included up to 100 sites of either commercial, light industrial, large-scale petroleum mixing/packaging facilities, industrial manufacturing, equipment rentals and self-storage facilities. Portfolio management includes staff coordination, client interface, technical oversight, and providing significant finding updates to assist the client in their review of the portfolio offering. Assist in the development of Phase II scopes of work for sites warranting further investigation.

hillary.williams@atcgs.com 206 300 0841

National Shipping Client, UST Compliance Inspections - Washington and Oregon

Project Role: Inspected nine facilities for federal, state and local air agency compliance as related to USTs. Inspections included visual inspection of accessible tank components and review of required records pertaining to compliance testing, training, signage and permits. Prepared reports with recommendations to achieve compliance.

National Shipping Client, Stormwater Compliance - Greater Seattle Area

Project Role: Managed general compliance with facility Stormwater Pollution Prevention Plan (SWPPP) and Industrial General Stormwater Permit specifications. Includes dispatch of field staff for quarterly stormwater sampling events, interaction with Washington State Department of Ecology (Ecology), documentation of activities showing compliance with permit, reporting, and selection of additional operational, structural or source control best management practices (BMPs) as needed.

Animal Feed Production & Regional Data Center Clients, SPCC Plans, Telecommunications - Washington

Project Role: Prepared SPCC Plans for various facility types as per 40 CFR Part 112. On-site inspections include verifying site conditions and operations. Prepared SPCC Plans for facilities with oil storage ranging between 1,320 and 10,000-gallons of oil.

National Retail Client, Management Plans - Lacey, Washington

Project Role: Prepared a SWPPP and an Integrated Contingency Plan (ICP) including a SPCC Plan and a Hazardous Waste Contingency Plan for a national retailer's regional import warehouse/distribution center as per state and federal regulations. On-site activities include trailer loading/unloading, temporary storage and distribution of retail items, storage of oil, emergency generator use, equipment maintenance, truck and trailer washing, and fueling. Stormwater management features included treatment ponds, mitigated wetland, detention ponds, and oil-water separators.

Marine Services Client, UST Removal - Seattle, Washington

Project Role: Washington State Site Assessor on project for removal of five USTs. Removal included the over-excavation of petroleum and lead contaminated soils from two excavations. Tasks included sub-contractor oversight and direction, logging soil samples and soil descriptions and reporting.

Real Estate Clients, Soil & Groundwater Investigations - Greater Seattle Area

Project Role: Performed and or managed subsurface investigations throughout the Greater Seattle Area, including soil boring sampling, test pit explorations, groundwater sampling and groundwater monitoring well installation, as part of property characterizations for due diligence purposes. Performed oversight of drilling contractors, health and safety, logging soil core boring descriptions, soil sampling and groundwater sampling.

Real Estate & Financial Clients, Hazardous Material Surveys (Asbestos, Lead Paint & Mold) - Pacific Northwest

Project Role: Perform asbestos and lead paint surveys and microbial assessments throughout the Pacific Northwest. Project scopes ranged from limited interior renovation projects to full demolition projects. Perform surveys and prepare technical reports.

Bechtel National, Inc., Waste Treatment Plant (WTP) Construction Site, Department of Energy Industrial Hygiene Project - Hanford, Washington

Project Role: Performed personal industrial hygiene monitoring, sampling for metals fumes, organic vapors and dust on construction workers. Collected sound monitoring events on construction workers using personal dosimeters. Responsible for completing sample forms and data interpretation for air and sound monitoring events.

Financial & Real Estate Clients, Phase I ESAs - Pacific Northwest & Northeast United States

Project Role: Conducted numerous environmental site assessments for industrial and manufacturing facilities, gas stations, and residential apartment complexes, retail shopping centers with current or historical dry cleaning operations, hotels, commercial office buildings and undeveloped properties. Performed historical research, reviewed and interpreted information and data form historical reports, prior subsurface investigations, and regulatory data for each respective project. Managed and worked on multiple site portfolio ESAs requiring staff coordination and short timeframes to meet client goals. Assisted an ATC Senior Principal by performing senior review of Phase I ESAs for their National Programs clients.

JEANNE HOMSEY, PE
Branch Manager

PROFESSIONAL SUMMARY

Ms. Homsey is a Professional Civil Engineer with experience in civil and environmental engineering since 1986. Ms. Homsey has managed numerous soil and groundwater investigation and remediation projects for clients in the private and public sectors. These projects have included Phase I and Phase II environmental site assessments; performing pilot studies; preparing and implementing remedial action plans (RAPs); operating and monitoring remediation systems; fate and transport modeling; evaluating human health and environmental risks; and, obtaining site closure certification.

As a Branch Manager and Professional Engineer, Ms. Homsey has been responsible for the technical application of geologic and hydrogeologic data and the design of remediation systems. Her responsibilities include: client liaison for projects in ATC's Northern California offices; supervision of engineers, geologists, and technicians in the implementation of environmental site assessments, subsurface investigations, and remedial actions; performing and evaluating pilot tests; remediation alternative selection and system design; risk evaluation; data interpretation; technical report review; and, liaison with various local and regional regulatory agencies.

PROJECT EXPERIENCE

- **Phase I ESAs / Northern, CA. Served as Environmental Professional and Senior Reviewer on Phase I Environmental Projects throughout Northern California since 1996**. Projects include real estate transactions for restaurant portfolios, big box store portfolios, commercial properties, public transportation properties, residential developments, public land acquisition, and telecommunications sites.

- **Investigation and Remediation Oversight / UST Sites / Northern CA**. Project manager for over 35 petroleum sites for public and private sector clients that include groundwater and soil investigations, risk assessments with soil vapor intrusion surveys, system operations and maintenance programs, feasibility testing and Corrective Action Plan development, Work Plan development, permitting, UST removal, remediation via air sparging, soil vapor extraction, dual-phase high vacuum extraction, ozone sparge and groundwater extraction.

- **Investigation and Remediation Oversight / Confidential Client / Northern CA**. Project manager for a private sector client that impacted the subsurface with hexavalent chromium. The project included groundwater and soil investigations to delineate the extent of the problem. Following characterization, a bench scale test was performed to show that the hexavalent chromium could be treated through the injection of calcium polysulfide. A Corrective Action Plan was developed. A pilot study was conducted and concentrations of hexavalent chromium were successfully remediated to nondetectable levels in the test wells. A Final Remediation Plan will be developed.

- **Soil Vapor Intrusion / UST Sites / Northern CA**. Senior engineer for soil vapor intrusion studies to estimate the risk to human health and the environment using site specific data. Studies included the installation and sampling of temporary and permanent sampling points and subslab analysis.

- **California UST Clean-up Fund and Third Party Funding / Various Petroleum Clients / Various Facilities CA**. Preparation and review of reimbursement requests on behalf of clients for submittal to the California UST Clean-up Fund and to Enviro Cap Inc. for third party funding. Currently overseeing request submittals for approximately 40 clients with a reimbursement rate exceeding 95%.

- **Stormwater Program / USPS / Northern CA**. Assisted in the management of the General Stormwater Program of Northern CA USPS facilities. Scope included coordination with facilities staff, tracking and supervising sample collection and laboratory analysis, tracking and reviewing annual reports.

- **Site Investigation / Confidential Client / San Bruno, CA**. Served as a Project Manager responsible for the coordination of semi-annual groundwater monitoring and sampling activities, remediation pilot testing activities, and subsurface investigation activities for three separate retail fuel stations that were managed as a commingled plume site.

- **Self-Monitoring Program / Refinery / Martinez, CA**. Project included performing annual inspections of oily waste impoundment at a northern California refinery. Recommendations were provided to maintain compliance with California Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (WDR).

- **Spill Prevention Control and Countermeasure Plans / Various Clients / Northern CA.** Professional Engineer for numerous SPCC Plans prepared for a variety of sites in Northern California including telecommunications, commercial and industrial properties.

- **Landfill Compliance Monitoring & Reporting / Confidential Client / Northern CA.** Served as Project Manager for five landfills in Northern CA. Responsibilities include oversight of compliance monitoring and sampling of groundwater wells, gas wells, residential wells and treatment system, and compliance reporting.

- **Groundwater Monitoring and Reporting / Various Clients / Northern CA**. Project Manager for over 100 underground storage tank sites in the State of California. Responsibilities include oversight of compliance monitoring and sampling, operation of soil and groundwater treatment systems, reporting and regulatory liaison.

PROFESSIONAL REGISTRATIONS

- Professional Engineer (CA, #47410, 1991)

EDUCATION

- B.S., Civil Engineering, Marquette University, 1985

TRAINING AND CERTIFICATIONS

- OSHA 40-Hour Hazardous Waste Operations
- OSHA 8-Hour Hazardous Waste Site Supervisor
- Health and Safety Training, CPR, First Aid and Respiratory Fit Testing

APPENDIX J

RECORDS OF COMMUNICATION

ATC

PHONE LOG

PROJECT NAME: W. Schulte Road - 18.66acres PROJECT NO.:

CALL PLACED BY: Jim Kunkel NUMBER:

CALL PLACED TO: San Joaquin County EHD NUMBER: 209-468-3420

DATE: TIME: DURATION:

REASON FOR CALL: Records

NOTES:

County indicated that publically available records were in the process of being scanned for online access. Scanned records were available, but records awaiting scan may not be.

FOLLOW UP: Checked online system. Found well permit

APPENDIX K

LABORATORY REPORTS

APPENDIX L

OTHER SUPPORTING DOCUMENTATION

Applications Will Be Processed When Submitted Properly Completed. Be Sure To Sign The Application.

FOR OFFICE USE: 16286 W. SCHULTE

NOV - 2 1983

SAN JOAQUIN LOCAL HEALTH DISTRICT

APPLICATION

(For Non-Transferable, Revocable, Suspendable)

PUMP & WELL

ENVIRONMENTAL HEALTH PERMIT

WATER QUALITY

209-230-25

(COMPLETE IN TRIPLICATE)

Application is hereby made to the San Joaquin Local Health District for a permit to construct and/or install the work herein described. This application is made in compliance with San Joaquin County Ordinance No. 1862 and the rules and regulations of the San Joaquin Local Health District.

Exact Site Address S.E. corner of Hansen & Schulte Rds. City/Town Tracy

Owner's Name David Pombo Phone 835-5152

Address 25726 S. Hansen Rd. City Tracy

Contractor's Name Hennings Bros. License # 290813 Business Phone 545-1185

Contractor's Address 3525 Pleasandale; Modesto Emergency Phone

Is Certificate of Workman's Compensation Insurance on File With SJLHD? Yes X No

83-1223

TYPE OF WORK (CHECK): NEW WELL ☑ DEEPEN ☐ RECONDITION ☐ DESTRUCTION ☐

WELL CHLORINATION ☐ WELL ABANDONMENT ☐ OTHER ☐ PUMP INSTALLATION ☐ PUMP REPAIR ☐

REPLACEMENT ☐

DISTANCE TO NEAREST: Septic Tank 100'+ Sewer Lines ____ Pit Privy ____

Sewage Disposal Field ____ Cesspool/Seepage Pit ____ Other ____

Property Line ____ Private Domestic Well 45' Public Domestic Well ____

INTENDED USE

- ☐ INDUSTRIAL
- ☒ DOMESTIC/PRIVATE
- ☐ DOMESTIC/PUBLIC
- ☐ IRRIGATION
- ☐ CATHODIC PROTECTION
- ☐ DISPOSAL
- ☐ GEOPHYSICAL

TYPE OF WELL

- ☐ CABLE TOOL
- ☐ DRILLED
- ☐ DRIVEN
- ☒ GRAVEL PACK
- ☒ ROTARY
- ☐ OTHER ____

Dia. of Well Excavation 13"

Dia. of Well Casing 8" PVC

Gauge of Casing 200 Sch.

Depth of Grout Seal 50'

Type of Grout Cement Grout

Other Information Slab by owner driller

Surface Seal Installed By: ____

PUMP INSTALLATION: Contractor ____

Type of Pump ____ H.P. ____

PUMP REPLACEMENT: ☐ State Work Done ____

PUMP REPAIR: ☐ State Work Done ____

DESTRUCTION OF WELL: Well Diameter ____ Approximate Depth ____

Describe Material and Procedure ____

16286 W. Schulte

I hereby certify that I have prepared this application and that the work will be done in accordance with San Joaquin County ordinances, state laws, and rules and regulations of the San Joaquin Local Health District.

Home owner or licensed agent's signature certifies the following: "I certify that in the performance of the work for which this permit is issued, I shall not employ any person in such manner as to become subject to workman's compensation laws of California."

Contractor's hiring or sub-contracting signature certifies the following: "I certify that in the performance of the work for which this permit is issued, I shall employ persons subject to workman's compensation laws of California."

I will call for a Grout Inspection prior to grouting and a final inspection.

Signed X Hennings Bros. by MK Title: Roddy Date: 10/31/83

(Draw Plot Plan on Reverse Side)

FOR DEPARTMENT USE ONLY

PHASE I

Application Accepted By MK Nguyen Date 11-2-83

Additional Comments: ____

Phase I Grout Inspection Inspection By MK Nguyen Date 11-1-83

Phase III Final Inspection Inspection By ____ Date ____

Fee Is Due: ☐ ANNUALLY ☐ PER UNIT ☐ PER SITE ☐ EACH ☐ January 1 & Received By January 31 ☐ July 1 & Received By July 31

	BASE	EXPLANATION	BILLING DATE	REMITTANCE DATE	$ REMITTED	AMOUNT DUE	REMIT CHECKED AMOUNT
FEE	$43				$43.00		
LESS PRORATION							
PLUS PENALTY			CR#11062				
OTHER							
OTHER							

MK 11-2-83 - 83-1223

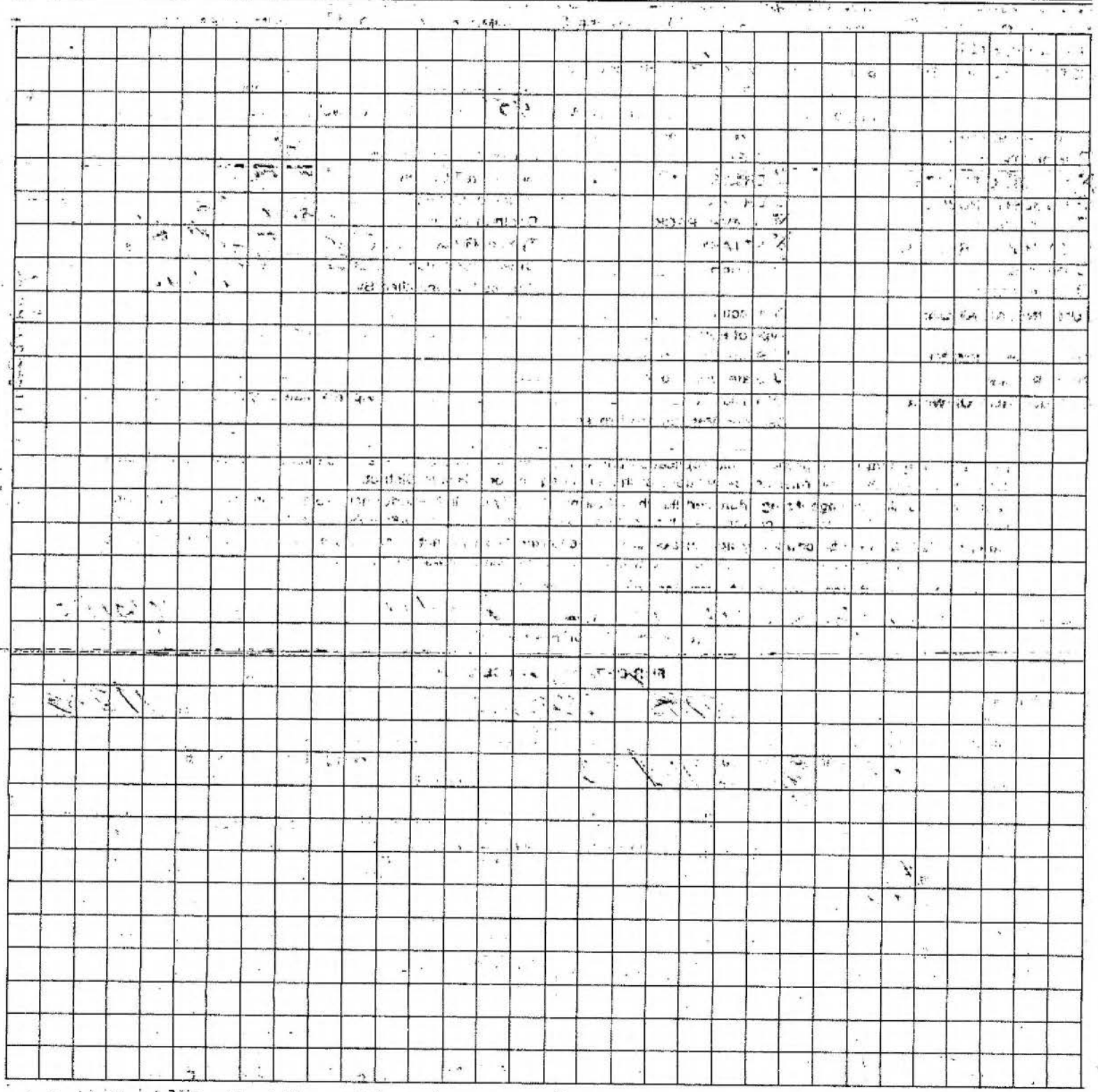
Received by Date Receipt No. Permit No. Issuance Date Mailed Delivered

APPLICANT—RETURN ALL COPIES TO: ENVIRONMENTAL HEALTH PERMIT/SERVICES 1601 E. HAZELTON AVE., P.O. Box 2009 STOCKTON, CA 95201

PLOT PLAN
(Draw To Scale)

SCALE _____" TO _____'

1. Names of streets or roads nearest to or bounding the property.
2. Outline of the property, giving dimensions and North direction.
3. Dimensioned outlines and locations of all existing and proposed structures, including covered areas such as patios, driveways and walks.
4. Location of house sewer outlet, public sewer, sewage disposal system or proposed sewage disposal system, proposed expansion of sewage disposal system, or any other possible source of contamination.
5. Location of other wells within radius of 75 feet on the property or adjoining property.
6. Location of sewage disposal system on adjoining property or within a radius of 150 feet.



West Schulte Road
16286 West Schulte Road
Tracy, CA 95377

Inquiry Number: 6221465.7
October 12, 2020

EDR Environmental Lien and AUL Search

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental Lien and AUL Search

The EDR Environmental Lien and AUL Search Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

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EDR Environmental Lien and AUL Search

TARGET PROPERTY INFORMATION

ADDRESS

16286 West Schulte Road
West Schulte Road
Tracy, CA 95377

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

AULs: Found ☐ Not Found ☒

RESEARCH SOURCE

Source 1:

San Joaquin Recorder
San Joaquin, CA

PROPERTY INFORMATION

Deed 1:

Type of Deed:	deed
Title is vested in:	D & D Pombo LLC
Title received from:	David A Pombo Dello L Pombo
Deed Dated	12/21/2004
Deed Recorded:	12/21/2004
Book:	NA
Page:	na
Volume:	na
Instrument:	na
Docket:	NA
Land Record Comments:	
Miscellaneous Comments:	
Legal Description:	See Exhibit
Legal Current Owner:	D & D Pombo LLC
Parcel # / Property Identifier:	209-230-25
Comments:	See Exhibit

Deed Exhibit 1

RECORDING REQUESTED BY ATTORNEY AND WHEN RECORDED, MAIL TO:

ALLEN T. RATCLIFFE, JR.
Attorney at Law
156 Diablo Rd., Suite 310
Danville, CA 94526

DOC # 2004-291707
12/21/2004 03:30P Fee:13.00
Page 1 of 3
Recorded in Official Records
County of San Joaquin
GARY W. FREEMAN
Assessor-Recorder-County Clerk
Paid by SHOWN ON DOCUMENT

MAIL TAX STATEMENTS TO:

David A. Pombo
25730 S. Hansen Road
Tracy, California 95377

DOCUMENTARY TRANSFER TAX $ZERO; TRANSFER TO PARTNERSHIP; NO CONSIDERATION; NOT PURSUANT TO A SALE

David A. Pombo

GRANT DEED

David A. Pombo, a married man as his separate property, as to an undivided 75% interest and Dello L. Pombo, a married man as his separate property, as to an undivided 25% interest [The effect of this deed is to transfer 100% of the property]

do hereby grant, transfer and convey to

D & D Pombo, LLC, a California limited liability company

all right, title and interest in and to that certain real property situated in the County of San Joaquin, State of California, more particularly described as follows:

SEE EXHIBIT "A," ATTACHED AND MADE A PART HEREOF

Assessor's Parcel No. 209-230-23 and Assessor's Parcel No. 209-230-25

NOTE: Transfer to a limited liability company which results solely in change in the method of holding title and in which no proportional interests remain the same. Exempt under RTC Section 62(a)(2).

Executed on 12/21/04, 2004, at TRACY, California.

STATE OF CALIFORNIA)
) ss.
COUNTY OF San Joaquin)

On 12-21-2004, 2004, before me, the undersigned Notary Public, personally appeared David A. Pombo and Dello L. Pombo, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacities, and that by his signature on the instrument he, or the entity on behalf of which he acted, executed the instrument.

WITNESS my hand and official seal.

Signature _____

David A. Pombo

Dello L. Pombo

STACEY L. BURKS
COMM. #1383857
NOTARY PUBLIC - CALIFORNIA
SAN JOAQUIN COUNTY
My Comm. expires Nov. 8, 2006

Mail tax bills as directed above

EXHIBIT "A"
[Legal Description]

All right, title and interest in and to that real property situated in the State of California, County of San Joaquin, and described as follows:

A tract of land in the southeast quarter (SE 1/4) of Section Thirty-five (35), Township Two (2) South, Range Four (4) East, Mount Diablo Meridian, County of San Joaquin, State of California; said tract of land being a portion of that certain parcel of land described as Parcel Two in the Grant Deed to the United States of America dated October 9, 1946, and recorded April 22, 1947, in Volume 1064 at page 89 of the Official Records of said county and more particularly described as follows:

Beginning at a point on the easterly boundary of the southeast quarter of said Section 35 that is distant therealong North 00°04'00" West, 1,587.75 feet from the southeast corner of said Section 35; thence from said point of beginning North 83°13'57" West 252.03 feet; thence South 68°54'21" West 957.49 feet; thence South 79°52'33" West 154.20 feet; thence North 83°05'23" West 240.21 feet to a point on the boundary that is common with the southerly boundary of the existing railroad right-of-way and the northerly boundary of the hereinbefore referred to Parcel Two (1064 OR 89); thence along said common boundary North 67°46'00" East 529.66 feet to a point that is on the arc of a circle and is distant North 22°14' West 5,529.6 feet from the center of said circle; thence continuing along said common boundary easterly on the arc of said circle for a distance of 1,091.6 feet to a point on the easterly boundary of the southeast quarter of said Section 35; thence along said easterly boundary south 00°04'00" East 185.05 feet to the point of beginning, containing an area of 4.82 acres, more of less.

Delta-Mendota Canal Parcel A

San Joaquin County, CA

GSA Control No. 9-I-CA-882-A, B, C

SUBJECT TO: All covenants, easements, reservations, restrictions and encumbrances whether or record or not; and

Any statement of facts which a physical inspection and accurate survey of the premises may disclose; and

The condition that the Grantee, his assigns and successors will not be permitted to excavate from within 50 feet from the new Delta-Mendota Canal right-of-way boundary and/or below a 1-1/2:1 slope from the 50 feet distant point in an outward direction.

The Grantee covenants for himself, his successors and assigns and every successor in interest to the property herein described, or any part thereof, that any construction or alternation is prohibited unless a determination of no hazard to air navigation is issued by the Federal Aviation Administration in accordance with Title 14 Code of Federal Regulations, Part 77, entitled "Objects Affecting Navigable Airspace," or under the authority of Federal Aviation Act of 1958, as amended.

TOGETHER WITH all and singular tenements, hereditaments and appurtenances thereunto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof, and also all the estate, right, title, interest, property possession, claim and demand whatsoever, in law as well as in equity, of the said GRANTOR of in or to the foregoing described premises, and every part and parcel thereof, with the appurtenances.

SAID PROPERTY transferred hereby was duly determined to be surplus, and was assigned to the General Services Administration for disposal pursuant to the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), and amended, and applicable rules, orders and regulations.

TO HAVE AND TO HOLD, all and singular, the said premises, with the improvements thereon, unto the said GRANTEE, his successors and assigns.

APN: 209-230-23

All right, title and interest in and to that real property situated in the State of California, County of San Joaquin, and described as follows:

Base and Meridian, situated in San Joaquin County, State of California, more particularly describ All that portion of the Northwest quarter of Section 35, Township 2 South, Range 4 East, Mount Diablo ed as follows:

Beginning at the Northwest corner of Section 35, Township 2 South, Range 4 East, Mount Diablo Base and Meridian; thence S 88° 36' 08" E along the north line of said Section 35 a distance of 752.61 feet; thence S 0° 09' 50" W a distance of 1425.67 feet to a point on the northeasterly line of the Delta Mendota Canal; thence along the northeasterly line of said Delta Mendota Canal the following two (2) courses 1) N 34° 52' 38" W a distance of 185.30 feet; 2) N 71° 31' 38" W a distance of 690.20 feet to a point on the west line of said Section 35; thence N 0° 39' 22" E along the west line of said Section 35 a distance of 1073.40 feet to the point of beginning.

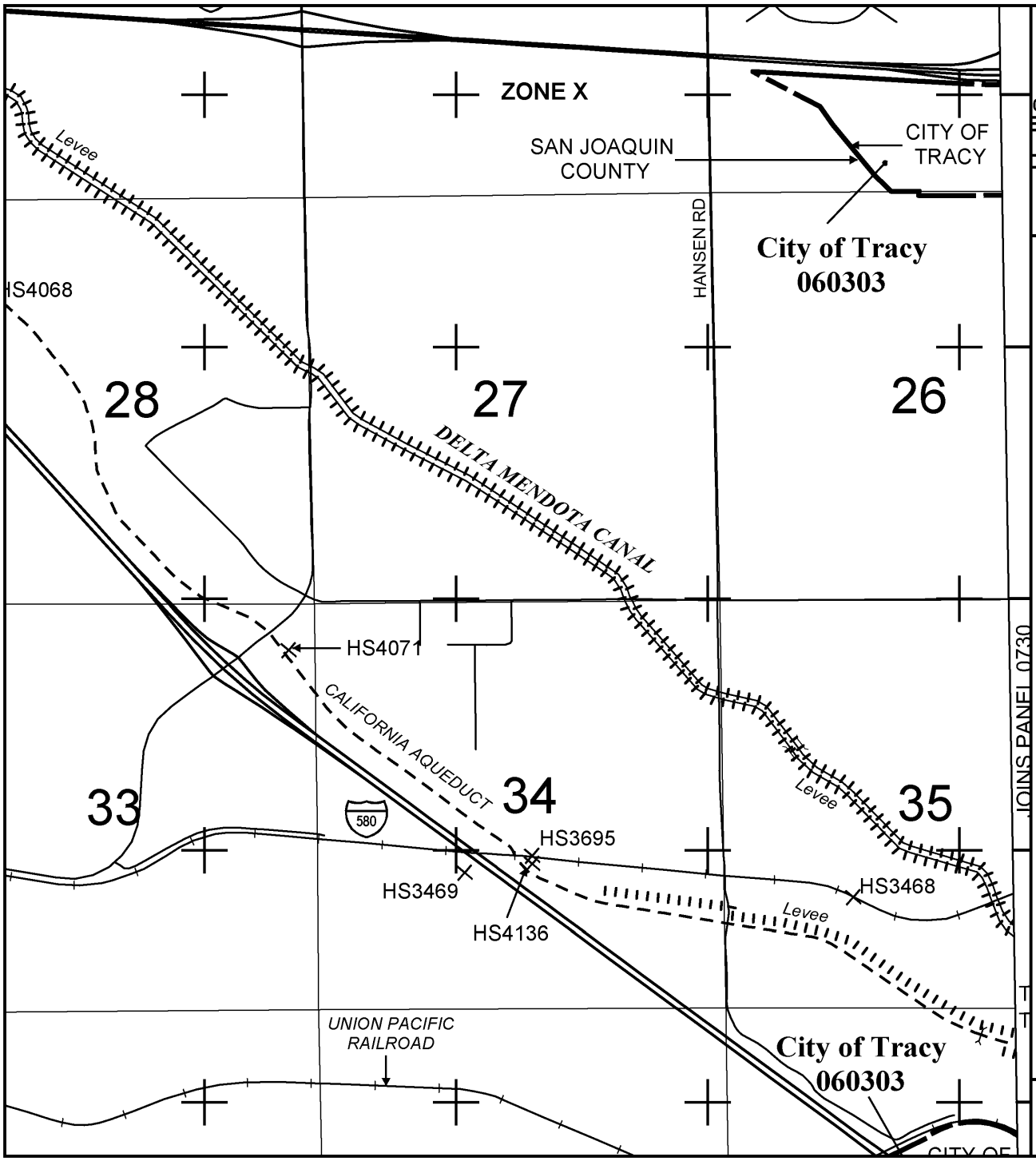
EXCEPTING THEREFROM All that portion thereof as described and conveyed in the Deed to Williams Communications, Inc., Recorded January 4, 2001 as Instrument No. 01001172, San Joaquin County Records.

ALSO EXCEPTING THEREFROM THE FOLLOWING:

A portion of Section thirty-five (35), Township two (2) South, Range four (4) East, Mount Diablo Base and Meridian, more particularly described as follows:

Beginning at the intersection of the south line of Schulte Road (60 feet wide) with the east line of 40 foot wide Hansen Road, said intersection being on the west line of said Section 35, bearing South 00° 38' 33" West, 30.00 feet from the northwest corner of said Section; thence South 00° 38' 33" West along the west line of said Section 35, being along said east line of Hansen Road, 1043.40 feet to the northerly right of way line of the Delta Mendota Canal; thence South 71° 32' 47" East along said northerly right of way line, 50.33 feet; thence leaving said northerly right of way line, northerly on a curve to the left, from a tangent that bears North 06° 49' 21" East, said curve having a radius of 2200.00 feet (the long chord of which bears North 02° 42' 03" East, 316.24 feet), an arc distance of 316.52 feet; thence North 01° 25' 15" West, 712.87 feet; thence North 44° 55' 41" East, 41.42 feet to aforesaid south line of Schulte Road; thence North 88° 43' 23" West along said south line, 62.53 feet to the point of beginning.

Containing 1.201 acres, more or less.



MAP SCALE 1" = 2000'

0 0 2000 4000 FEET

0 600 1200 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0725F

FIRM

FLOOD INSURANCE RATE MAP

SAN JOAQUIN COUNTY, CALIFORNIA

AND INCORPORATED AREAS

PANEL 725 OF 950

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SAN JOAQUIN COUNTY	060299	0725	F
TRACY, CITY OF	060303	0725	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06077C0725F

EFFECTIVE DATE
OCTOBER 16, 2009

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

APPENDIX F

Environmental Noise Assessment

Environmental Noise Assessment

Schulte Road Warehouse

San Joaquin County, California

March 16, 2023

Project #211113

Prepared for:

DE NOVO PLANNING GROUP

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762

Prepared by:

Saxelby Acoustics LLC

Luke Saxelby, INCE Bd. Cert.
Principal Consultant
Board Certified, Institute of Noise Control Engineering (INCE)

(916) 760-8821
www.SaxNoise.com | Luke@SaxNoise.com
915 Highland Pointe Drive, Suite 250
Roseville, CA 95678

This section provides a general description of the existing noise sources in the Project vicinity, a discussion of the regulatory setting, and identifies potential noise impacts associated with the proposed Project. Project impacts are evaluated relative to applicable noise level criteria and to the existing ambient noise environment. Mitigation measures have been identified for significant noise-related impacts.

3.9.1 ENVIRONMENTAL SETTING

KEY TERMS

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared.
CNEL	Community noise equivalent level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
$L_{(n)}$	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L_{50} is the sound level exceeded 50 percent of the time during the one hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
SEL	Sound exposure levels. A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.

FUNDAMENTALS OF ACOUSTICS

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure

variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptor, L_{dn}, and shows very good correlation with community response to noise.

The day/night average level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to L_{dn}, but includes a +5 dB penalty for evening noise. Table 3.9-1 lists several examples of the noise levels associated with common situations.

TABLE 3.9-1: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	*NOISE LEVEL (DBA)*	*COMMON INDOOR ACTIVITIES*
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER 2013.

EFFECTS OF NOISE ON PEOPLE

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a 1 dBA change cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING NOISE LEVELS

Existing and Surrounding Land Uses

The Project site is located at 16286 West Schulte Road in unincorporated San Joaquin County, California. The Project site is within the Tracy Sphere of Influence (SOI) 10-Year Planning Horizon and is immediately adjacent to the Tracy city limits to the north of the site.

The Project site is bound by Hansen Road to the west, West Schulte Road to the north, the Delta Mendota Canal to the south, and a private driveway and vacant land on the east. Surrounding land uses include the Cal Fire Station 26 and vacant land to the west, vacant land previously used for agricultural uses to the east, two industrial warehouses to the north, and the Delta Mendota Canal and agricultural land to the south. The area north of the Project site is part of the Cordes Ranch Specific Plan.

Existing Ambient Noise Levels

To quantify the existing ambient noise environment in the Project vicinity, two continuous (24-hour) noise level measurements were conducted near receptors adjacent to the Project site from December 8th to December 9th, 2021. The noise measurement locations are shown on Figure 3.9-1. The noise level measurement survey results are provided in Table 3.9-2. Appendix B of Appendix E shows the complete results of the continuous noise monitoring at sites LT-1 and LT-2.

TABLE 3.9-2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

SITE	*LOCATION*	L_{DN}	*AVERAGE MEASURED HOURLY NOISE LEVELS, DB*					
			DAYTIME (7AM-10PM)			*NIGHTTIME (10PM-7AM)*		
			L_{EQ}	L_{50}	L_{MAX}	L_{EQ}	L_{50}	L_{MAX}
CONTINUOUS (24-HOUR) NOISE LEVEL MEASUREMENTS								
LT-1	Northern Project Boundary	71	66	60	83	65	57	81
LT-2	Eastern Project Boundary	70	63	56	81	64	56	83

SOURCE: SAXELBY ACOUSTICS, 2021.

The sound level meters were programmed to record the maximum, median, and average noise levels at each site during the survey. The maximum value (L_{max}) represents the highest noise level measured during an interval. The average value (L_{eq}) represents the energy average of all of the noise measured during an interval. The median value (L_{50}) represents the sound level exceeded 50 percent of the time during an interval.

Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters were used for the ambient noise level measurement survey. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 sound level meters (ANSI S1.4).

EXISTING ROADWAY NOISE LEVELS

To predict existing noise levels due to traffic, the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The model is based upon the Calveno reference noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. While the newer FHWA traffic noise model (TNM 3.0) is required for use on federally funded highway projects, the FHWA RD-77-108 model is still widely used in the industry and recognized as an accurate screening tool, typically resulting in slight over-predictions in traffic noise levels at typical receptor setback distances.

Traffic volumes for existing conditions were obtained from the traffic data prepared for the Project (Kimley Horn, 2022).

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each Project-area roadway segment. Table 3.9-3 shows the existing traffic noise levels in terms of L_{dn} at closest sensitive receptors along each roadway segment. A complete listing of the FHWA Model input data is contained in Appendix C of Appendix E.

TABLE 3.9-3: EXISTING TRAFFIC NOISE LEVELS AND DISTANCES TO CONTOURS

ROADWAY	*SEGMENT*	*EXTERIOR TRAFFIC NOISE LEVEL, DB L_{DN}*
S Lammers Rd	North of W Schulte Rd	73.3
S Lammers Rd	South of W Schulte Rd	71.7
W Schulte Rd	West of S Lammers Rd	62.3
Hansen Rd	South of W Schulte Rd	56.7

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KIMLEY HORN AND SAXELBY ACOUSTICS, 2022.

3.9.2 REGULATORY SETTING

FEDERAL

There are no federal regulations related to noise that apply to the proposed Project.

STATE

California Environmental Quality Act

The California Environmental Quality Act (CEQA) Guidelines, Appendix G, indicate that a significant noise impact may occur if a project exposes persons to noise or vibration levels in excess of local

general plans or noise ordinance standards, or cause a substantial permanent or temporary increase in ambient noise levels. CEQA standards are discussed more below under the Thresholds of Significance section.

CITY OF TRACY

The Project site is located within an unincorporated area of San Joaquin County and requires annexation into the City of Tracy. The City of Tracy addresses noise in the Noise Element of the General Plan and in the Municipal Code.

City of Tracy General Plan, 2011

The Noise Element establishes standards to provide compatible noise environments for new development or redevelopment projects and to control excessive noise exposure of existing developments. Goals, policies, actions, and standards provided in the Noise Element provide the basis for decision-making on determining land use compatibility with noise sources associated with the proposed project, as well as mitigation requirements.

Figure 9-3 of the Noise Element shows a summary of different land uses in the City and their associated acceptable and unacceptable noise levels. These guidelines state that environments with noise levels ranging up to 60 dBA L_{dn} are considered "normally acceptable" for new residential land use development; environments with ambient noise levels greater than 60 dBA and up to 75 dBA L_{dn} are considered "conditionally acceptable" for new residential development and new construction should only be undertaken after a detailed analysis of noise reduction requirements are made and needed noise insulation features are included in the design.

Tracy, California Municipal Code

Title 4, Chapter 12, Article 9 of the Tracy, California Municipal Code also contains guidance with the intent to control noise and vibration to promote and maintain the health, safety, and welfare of its residents. Section 4.12.720 of the Municipal Code generally prohibits certain activities that have the potential to result in loud, excessive, or unreasonable noise levels. According to the general sound level limits for residential districts, no person shall cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property on which the sound is produced to exceed 55 dBA for any one-hour average period. Specific activities enumerated in the municipal code that could potentially pertain to the proposed Project include minor maintenance to or improvement of real property. This limitation prohibits the generation of construction noise, other than between the hours of 7:00 a.m. and 10:00 p.m. on weekdays or between the hours of 7:00 a.m. and 10:00 p.m. on weekends and federal holidays. The noise ordinance also specifically prohibits the operation of any pneumatic or air hammer, pile driver, steam shovel, derrick, steam or electric hoist, parking lot cleaning equipment, or other appliance, the use of which is attended by loud or unusual noise, between the hours of 10:00 p.m. and 7:00 a.m.

San Joaquin County General Plan

Table PHS-2 of the San Joaquin County 2035 General Plan establishes an acceptable exterior noise level standard of 65 dBA L_{dn} and an interior noise level standard of 45 dBA L_{dn} for residential uses exposed to transportation noise sources. For non-transportation noise sources, the General Plan establishes the standards for sensitive uses. See Table 3.9-4.

TABLE 3.9-4: SAN JOAQUIN COUNTY GENERAL PLAN NON-TRANSPORTATION NOISE STANDARDS[1,2]

NOISE LEVEL DESCRIPTOR	*OUTDOOR ACTIVITY AREA[3] DAYTIME[2] (7 A.M. TO 10 P.M.)*	*OUTDOOR ACTIVITY AREAS[3] NIGHTTIME[2] (10 P.M. TO 7 A.M.)*
Hourly equivalent sound level (L_{eq}), dB	50	45
Maximum sound level (L_{max}), dB	70	65

NOTES: THESE STANDARDS APPLY TO NEW OR EXISTING RESIDENTIAL AREAS AFFECTED BY NEW OR EXISTING NON-TRANSPORTATION SOURCES.

[1] WHERE THE LOCATION OF OUTDOOR ACTIVITY AREAS IS UNKNOWN OR IS NOT APPLICABLE, THE NOISE STANDARD SHALL BE APPLIED AT THE PROPERTY LINE OF THE RECEIVING LAND USE. WHEN DETERMINING THE EFFECTIVENESS OF NOISE MITIGATION MEASURES, THE STANDARDS SHALL BE APPLIED ON THE RECEIVING SIDE OF NOISE BARRIERS OR OTHER PROPERTY LINE NOISE MITIGATION MEASURES.

[2] REFER TO MOUNTAIN HOUSE MASTER PLAN, TABLE 11.2, EXTERIOR NOISE STANDARDS FOR NOISE-SENSITIVE USES AFFECTED BY NON- TRANSPORTATION NOISE SOURCES, PAGE 11.12, FOR MOUNTAIN HOUSE NOISE STANDARDS.

[3] EACH OF THE NOISE LEVEL STANDARDS SPECIFIED SHALL BE REDUCED BY 5 DB FOR IMPULSIVE NOISE, SINGLE TONE NOISE, OR NOISE CONSISTING PRIMARILY OF SPEECH OR MUSIC.

SOURCE: SAN JOAQUIN COUNTY GENERAL PLAN.

San Joaquin County Development Regulations

The San Joaquin County Development Regulations, Section 9-1025.9(b) establishes land use noise level standards for new non-transportation or "stationary" noise sources, as outlined below that would be applicable to the proposed Project.

9-1025.9(B) – STATIONARY NOISE SOURCES.

Proposed projects that will create new stationary noise sources shall be required to mitigate the noise levels from these stationary noise sources so as not to exceed the noise level standards specified in Table 9-1025.9(b), Part II (Table 3.9-5).

TABLE 3.9-5: STATIONARY NOISE SOURCES

NOISE LEVEL DESCRIPTOR	*OUTDOOR ACTIVITY AREAS[1] DAYTIME[2] (7 A.M. TO 10 P.M.)*	*OUTDOOR ACTIVITY AREAS[1] NIGHTTIME[2] (10 P.M. TO 7 A.M.)*
Hourly equivalent sound level (L_{eq}), dB	50	45
Maximum sound level (L_{max}), dB	70	65

NOTES: [1] WHERE THE LOCATION OF OUTDOOR ACTIVITY AREAS IS UNKNOWN OR IS NOT APPLICABLE, THE NOISE STANDARD SHALL BE APPLIED AT THE PROPERTY LINE OF THE RECEIVING LAND USE. WHEN DETERMINING THE EFFECTIVENESS OF NOISE MITIGATION MEASURES, THE STANDARDS SHALL BE APPLIED ON THE RECEIVING SIDE OF NOISE BARRIERS OR OTHER PROPERTY LINE NOISE MITIGATION MEASURES.

[2] EACH OF THE NOISE LEVEL STANDARDS SPECIFIED SHALL BE REDUCED BY 5 DB FOR IMPULSIVE NOISE, SINGLE TONE NOISE, OR NOISE CONSISTING PRIMARILY OF SPEECH OR MUSIC. (ORD. 3675; ORD. 4036 § 2(PART), 1999)

SOURCE: SAN JOAQUIN COUNTY DEVELOPMENT REGULATIONS.

VIBRATION STANDARDS

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City of Tracy does not have specific policies pertaining to vibration levels. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 3.9-6 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v). A threshold of 0.20 in/sec p.p.v. is considered to be a reasonable threshold for short-term construction projects.

TABLE 3.9-6: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

P.P.V.		*HUMAN REACTION*	*EFFECT ON BUILDINGS*
MM/SEC.	*IN./SEC.*		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage.

SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBORN VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.

3.9.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the Project will have a significant impact related to noise if it will result in:

- Generation of a temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of excessive groundborne vibration or groundborne noise levels; and/or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Determination of a Significant Increase in Noise Levels

TEMPORARY CONSTRUCTION NOISE IMPACTS

With temporary noise impacts (construction), identification of "substantial increases" depends upon the duration of the impact, the temporal daily nature of the impact, and the absolute change in decibel levels. Per the City of Tracy noise ordinance, construction activities operating between 10 p.m. and 7 a.m. which create a noise disturbance at the property boundary of a residence are prohibited and would be considered a significant impact.

OPERATIONAL IMPACTS

The noise standards applicable to the Project include the relevant portions of the City of Tracy and County of San Joaquin General Plan and Municipal Code described in the Regulatory Setting section above (Section 3.9.2), and the following standards. Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project-noise conditions. Table 3.7-7 is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes

in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the L_{dn}.

TABLE 3.7-7: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE

AMBIENT NOISE LEVEL WITHOUT PROJECT, L_{DN}	*INCREASE REQUIRED FOR SIGNIFICANT IMPACT*
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

SOURCE: FEDERAL INTERAGENCY COMMITTEE ON NOISE (FICON)

Based on the Table 3.7-7 data, an increase in the traffic noise level of 5 dB or more would be significant where the pre-project noise levels are less than 60 dB L_{dn}, or 3 dB or more where existing noise levels are between 60 to 65 dB L_{dn}. Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 65 dB L_{dn}. The rationale for the Table 3.7-7 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

IMPACTS AND MITIGATION MEASURES

Impact 3.9-1: The proposed Project has the potential to generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less-than-Significant with Mitigation Measures)

Traffic Noise Environment at Off-Site Receptors with and without the Project

OFF-SITE TRAFFIC NOISE IMPACT ASSESSMENT METHODOLOGY

Implementation of the proposed Project would result in an increase in daily traffic volumes on the local roadway network, and consequently, an increase in noise levels from traffic sources along affected segments. Tables 3.9-8 and 3.9-9 show the predicted traffic noise level increases on the local roadway network for Existing, Existing Plus Project, Cumulative No Project, and Cumulative Plus Project conditions. Appendix C of Appendix E provides the complete inputs and results of the FHWA traffic noise modeling.

TABLE 3.9-8: EXISTING AND EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	APPROX. RECEPTOR DISTANCE	NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS				
			EXISTING	EXISTING + PROJECT	CHANGE	CRITERIA	SIGNIFICANT?
S Lammers Rd	North of W Schulte Rd	65	73.3	73.3	0.0	+ 1.5 dB	No
S Lammers Rd	South of W Schulte Rd	85	71.7	71.7	0.0	+ 1.5 dB	No
W Schulte Rd	West of S Lammers Rd	220	62.3	62.3	0.0	+ 3.0 dB	No
Hansen Rd	South of W Schulte Rd	115	56.7	56.7	0.0	+ 5.0 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KIMLEY HORN AND SAXELBY ACOUSTICS, 2022.

TABLE 3.9-9: CUMULATIVE AND CUMULATIVE PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	APPROX. RECEPTOR DISTANCE	NOISE LEVELS (L_{DN}, dB) AT NEAREST SENSITIVE RECEPTORS				
			CUMULATIVE	CUMULATIVE + PROJECT	CHANGE	CRITERIA	SIGNIFICANT?
S Lammers Rd	North of W Schulte Rd	65	78.8	78.8	0.0	+ 1.5 dB	No
S Lammers Rd	South of W Schulte Rd	85	77.8	77.8	0.0	+ 1.5 dB	No
W Schulte Rd	West of S Lammers Rd	220	63.2	63.2	0.0	+ 3.0 dB	No
Hansen Rd	South of W Schulte Rd	115	57.0	57.0	0.0	+ 5.0 dB	No
Valpico Rd	West of S Lammers Rd	75	70.9	70.9	0.0	+ 1.5 dB	No

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KIMLEY HORN AND SAXELBY ACOUSTICS, 2022.

Project-Generated Non-Transportation Noise Environment at Off-Site Receptors

The primary non-transportation noise sources associated with the proposed Project are on-site parking lot circulation and the proposed loading docks. In order to evaluate these noise sources at the nearest sensitive receptors, Saxelby Acoustics used the SoundPLAN noise prediction model to generate noise level predictions according to the assumptions outlined below.

The SoundPLAN noise prediction model was used to plot noise contours and to calculate noise levels at the sensitive receptors located around the Project site. Inputs to the SoundPLAN model included ground topography and ground type, noise source locations and heights, receiver locations, and sound power level data. These predictions are made in accordance with International Organization for Standardization (ISO) standard 9613-2:1996 (Acoustics – Attenuation of sound during propagation outdoors).

It should be noted that sound power is a measure of the total acoustic energy emitted by a noise source and is irrespective of distance from the source. Sound power is input into the SoundPLAN model as a representation of the total acoustic energy emitted by a specific noise source. Sound power levels in this report are A-weighted decibel levels, noted as "dBA, PWL" per industry standards. The model then corrects for the many factors (i.e., distance, terrain shielding, atmospheric absorption, etc.) which affect sound propagation from the noise source to the receiver location.

LOADING DOCK NOISE GENERATION

To determine typical noise levels associated with the proposed loading docks, noise level measurement data from a United Natural Foods, Inc. (UNFI) warehouse was used. The noise level measurements were conducted at a distance of 200 feet from the center of the loading dock and circulation area. Activities during the peak hour of loading dock activities included truck arrival/departures, truck idling, truck backing, air brake release, and operation of truck-mounted refrigeration units.

The results of the loading dock noise measurements indicate that a busy hour generated an average noise level of 61 dBA L_{eq} at a distance of 200 feet from the center of the loading dock truck maneuvering lanes. This analysis assumes that the proposed loading docks would operate at this level of activity in a busy hour during either daytime (7:00 a.m. to 10:00 p.m.) or nighttime (10:00 p.m. to 7:00 a.m.).

PARKING LOT CIRCULATION

Based upon the Project traffic study, the peak hour trips for the Project would be 60 autos and 12 tractor-trailers. The Project Alternative, which is composed of a truck parking lot and no warehouse building, is predicted to generate 69 trips in the peak hour. Saxelby Acoustics assumed that each of these trips could be tractor-trailers. Based upon noise measurements conducted of vehicle movements in parking lots, the sound exposure level (SEL) for a single passenger vehicle is 71 dBA at a distance of 50 feet while the SEL of a tractor-trailer is 85 dBA at the same distance.

Saxelby Acoustics used the SoundPLAN noise model to calculate noise levels at the nearest sensitive receptors. Input data included the loading dock and parking lot noise generation, as discussed above. Figure 3.9-2 shows the results of this analysis for the site layout in terms of the peak hour average (L_{eq}). Due to the nature of loading dock operation and parking lot circulation, the maximum noise levels are the same for both daytime and nighttime. Figure 3.9-3 shows the results of this analysis in terms of the peak hour maximum noise levels (L_{max}). Figures 3.9-4 and 3.9-5 show the peak hour average (L_{eq}) and maximum (L_{max}) noise level contours for the Project Alternative.

Construction Noise Environment

During the construction of the proposed Project, noise from construction activities would temporarily add to the noise environment in the Project vicinity. As shown in Table 3.9-10, activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet.

TABLE 3.9-10: CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	Maximum Level, dB at 50 feet
Auger Drill Rig	84
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90

Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

SOURCE: ROADWAY CONSTRUCTION NOISE MODEL USER'S GUIDE. FEDERAL HIGHWAY ADMINISTRATION. FHWA-HEP-05-054. JANUARY 2006.

Construction Vibration Environment

The primary vibration-generating activities would be grading, utilities placement, and parking lot construction. Table 3.9-11 shows the typical vibration levels produced by construction equipment.

TABLE 3.9-11: VIBRATION LEVELS FOR VARIOUS CONSTRUCTION EQUIPMENT

TYPE OF EQUIPMENT	*P.P.V. AT 25 FEET (INCHES/SECOND)*	*P.P.V. AT 50 FEET (INCHES/SECOND)*	*P.P.V. AT 100 FEET (INCHES/SECOND)*
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210 (Less than 0.20 at 26 feet)	0.074	0.026

SOURCE: TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT GUIDELINES. FEDERAL TRANSIT ADMINISTRATION. MAY 2006.

INCREASED TRAFFIC NOISE LEVELS AT EXISTING RECEPTORS

The FICON guidelines specify criteria to determine the significance of traffic noise impacts. Where existing traffic noise levels are greater than 65 dBA L_{dn}, at the outdoor activity areas of noise-sensitive uses, a +1.5 dBA L_{dn} increase in roadway noise levels will be considered significant. Where traffic noise levels are between 60 dBA L_{dn} and 65 dBA L_{dn}, a +3.0 dB L_{dn} increase in roadway noise levels will be considered significant. Where traffic noise levels are less than 60 dBA L_{dn}, a +5.0 dB L_{dn} increase in roadway noise levels will be considered significant.

According to Tables 3.9-8 and 3.9-9, the maximum increase is traffic noise at the nearest sensitive receptor is predicted to be 0.0 dBA. Therefore, impacts resulting from increased traffic noise would be considered ***less-than-significant***.

OPERATIONAL NOISE LEVELS AT EXISTING RECEPTORS

The nearest residential uses in the vicinity of the Project site are located approximately 3,400 feet to the south as measured from the center of the Project site. As shown on Figures 3.9-2 to 3.9-5, the project noise level contours exceeding the City of Tracy of County of San Joaquin noise level standards do not reach these residential uses. Operational noise levels of the proposed project comply with the applicable standards at these residences. Therefore, impacts resulting from operation of the proposed Project would be considered ***less-than-significant***.

CONSTRUCTION NOISE

During the construction phases of the Project, noise from construction activities would add to the noise environment in the immediate Project vicinity. Based upon the Table 3.9-10 data, the proposed Project is predicted to generate construction noise levels of up to 90 dBA at a distance of 50 feet. The closest sensitive receptor to the Project site is approximately 1,300 feet from the center of the Project construction area. At this distance, construction noise would attenuate to approximately 62 dBA.

Compliance with the City's permissible hours of construction, as well as implementing the best management noise reduction techniques and practices (both outlined in Mitigation Measure 3.9-1), would ensure that construction noise would not result in a substantial temporary increase in ambient noise levels that would result in annoyance or sleep disturbance of nearby sensitive receptors. Therefore, with implementation of Mitigation Measure 3.9-1, temporary construction noise impacts would be ***less-than-significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.9-1: *To reduce potential construction noise impacts during Project construction, the following multi-part mitigation measure shall be implemented for the Project:*

- *All construction equipment powered by internal combustion engines shall be properly muffled and maintained.*
- *Quiet construction equipment, particularly air compressors, shall be selected whenever possible.*
- *All stationary noise-generating construction equipment such as generators or air compressors shall be located as far as is practical from existing residences. In addition, the Project contractor shall place such stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *The construction contractor shall, to the maximum extent practical, locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction.*
- *Construction shall be limited to 7:00 a.m. to 10:00 p.m.*
- *Staging areas on the Project site shall be located in areas that maximize, to the extent feasible, the distance between staging activity and sensitive receptors.*

These requirements shall be noted on the Project improvement plans.

Impact 3.9-2: The proposed Project would not generate excessive groundborne vibration or groundborne noise levels. (Less than Significant)

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural damage.

The Table 3.9-11 data indicate that construction vibration levels anticipated for the Project are less than the 0.2 in/sec threshold at a distance of 26 feet. Structures which could be impacted by construction-related vibrations are located approximately 130 feet, or further, from the Project site. At these distances, construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

Therefore, this is a ***less-than-significant*** impact, and no mitigation is required.

Impact 3.9-3: The proposed Project would not expose people residing or working in the Project area to excessive noise levels. (Less than Significant)

There are no airports in the Project vicinity. Therefore, this impact is not applicable to the proposed Project.

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Schulte Road Warehouse

San Joaquin County, California

Figure 3.9-1

Noise Measurement Sites

Legend

- Project Site
- Noise Measurement - Long Term

0 ft 100 ft 250 ft 400 ft

Projection: UTM Zone 10 / WGS84 / meters
Rev. Date: 03/24/2022

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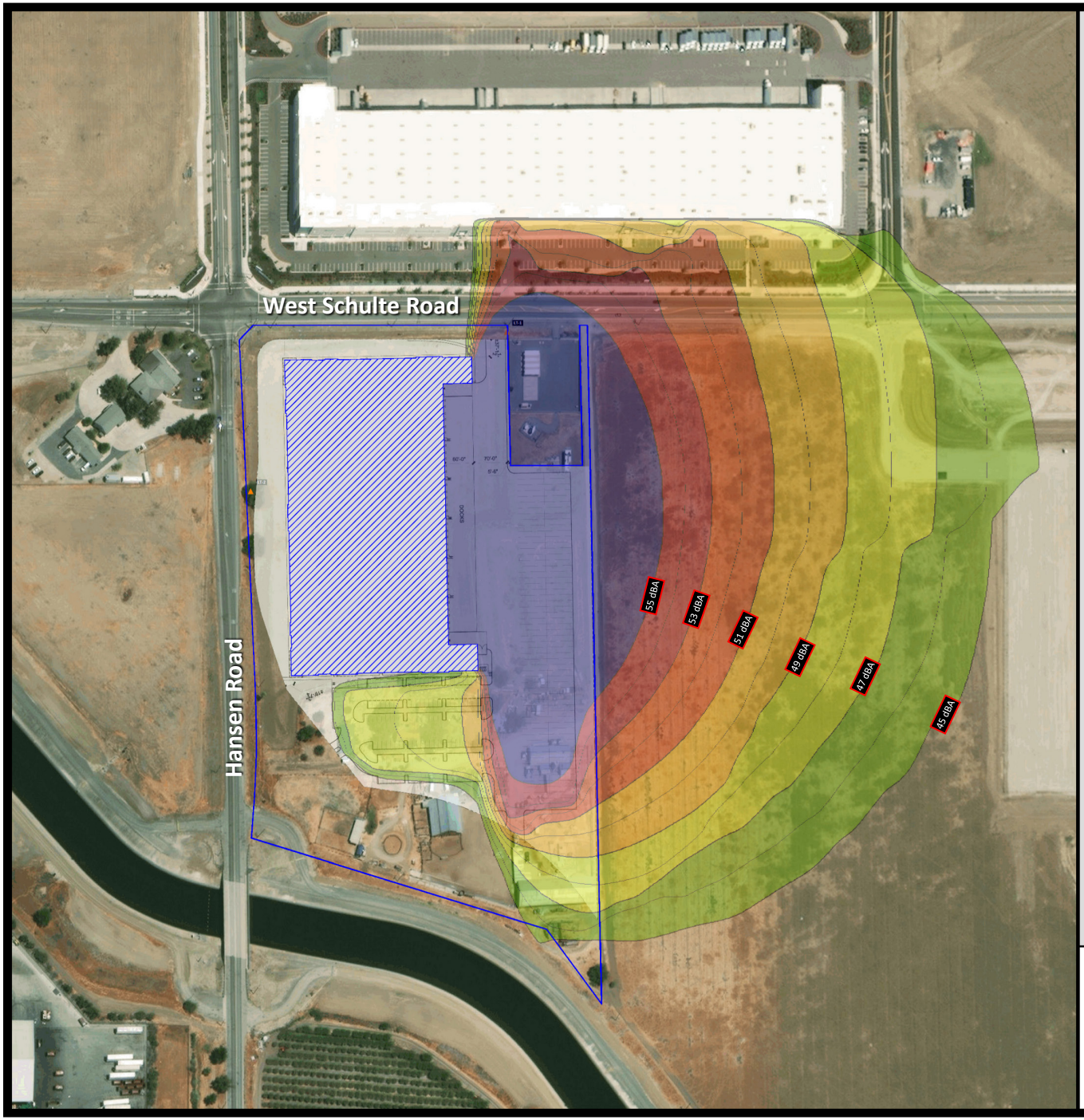

Schulte Road Warehouse

San Joaquin County, California

Figure 3.9-2

Project Noise Contours (dBA L_{eq})

Noise Level, dB(A)

45 <	<=	47
47 <	<=	49
49 <	<=	51
51 <	<=	53
53 <	<=	55
55 <		

Legend

- Project Building
- Project Boundary

Scale 1:300

0 50 100 200 300 400 feet

N

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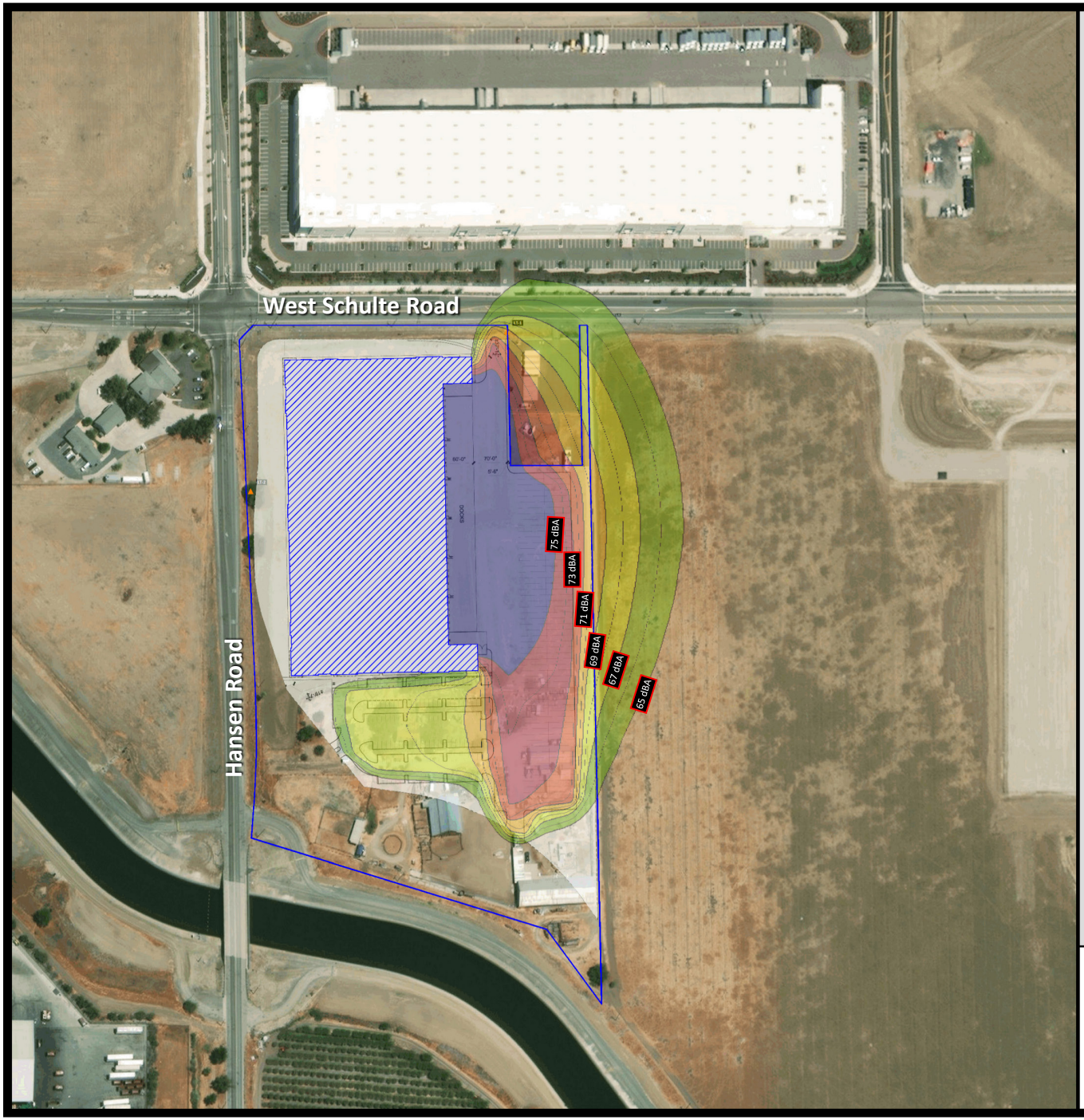

Schulte Road Warehouse

San Joaquin County, California

Figure 3.9-3

Project Maximum Noise Contours (dBA L_{max})

Noise Level, dB(A)

65 <	<=	67
67 <	<=	69
69 <	<=	71
71 <	<=	73
73 <	<=	75
75 <		

Legend

- Project Building
- Project Boundary

Scale 1:300

0 50 100 200 300 400 feet

N

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Schulte Road Warehouse

San Joaquin County, California

Figure 3.9-4

Project Alternative Noise Contours (dBA L_{eq})

Noise Level, dB(A)

45 <	<=	47
47 <	<=	49
49 <	<=	51
51 <	<=	53
53 <	<=	55
55 <		

Legend

- Project Building
- Project Boundary

Scale 1:300

0 50 100 200 300 400 feet

N

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Schulte Road Warehouse

San Joaquin County, California

Figure 3.9-5

Project Alternative Maximum Noise Contours (dBA L_{max})

Noise Level, dB(A)

65 <	<=	67
67 <	<=	69
69 <	<=	71
71 <	<=	73
73 <	<=	75
75 <		

Legend

- Project Building
- Project Boundary

Scale 1:300

0 50 100 200 300 400 feet

N

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Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

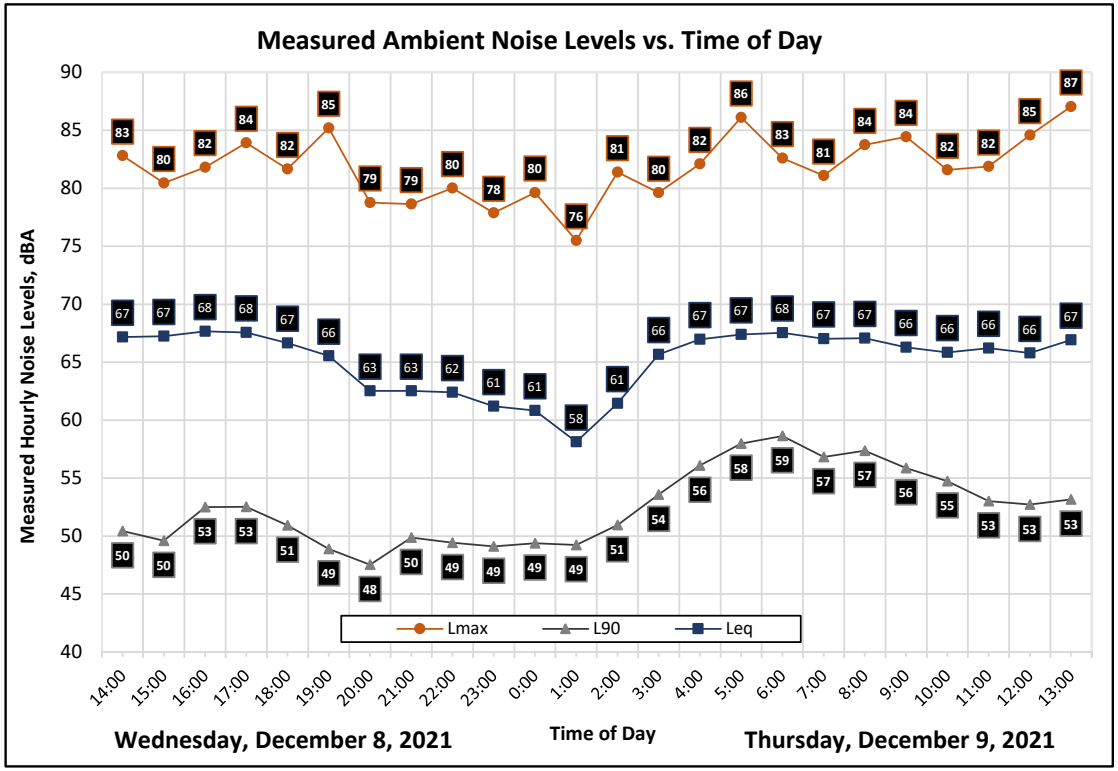
Appendix B: Continuous and Short-Term Ambient Noise Measurement Results

Appendix B1: Continuous Noise Monitoring Results

Site: LT-1
Project: Schulte Road Warehouse
Location: Northern Project Boundary
Coordinates: 37.7216787°, -121.5110867°
Meter: LDL 820-2
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, December 8, 2021	14:00	67	83	62	50
Wednesday, December 8, 2021	15:00	67	80	61	50
Wednesday, December 8, 2021	16:00	68	82	62	53
Wednesday, December 8, 2021	17:00	68	84	62	53
Wednesday, December 8, 2021	18:00	67	82	59	51
Wednesday, December 8, 2021	19:00	66	85	56	49
Wednesday, December 8, 2021	20:00	63	79	54	48
Wednesday, December 8, 2021	21:00	63	79	54	50
Wednesday, December 8, 2021	22:00	62	80	53	49
Wednesday, December 8, 2021	23:00	61	78	53	49
Thursday, December 9, 2021	0:00	61	80	53	49
Thursday, December 9, 2021	1:00	58	76	52	49
Thursday, December 9, 2021	2:00	61	81	54	51
Thursday, December 9, 2021	3:00	66	80	58	54
Thursday, December 9, 2021	4:00	67	82	63	56
Thursday, December 9, 2021	5:00	67	86	64	58
Thursday, December 9, 2021	6:00	68	83	65	59
Thursday, December 9, 2021	7:00	67	81	64	57
Thursday, December 9, 2021	8:00	67	84	64	57
Thursday, December 9, 2021	9:00	66	84	61	56
Thursday, December 9, 2021	10:00	66	82	59	55
Thursday, December 9, 2021	11:00	66	82	59	53
Thursday, December 9, 2021	12:00	66	85	59	53
Thursday, December 9, 2021	13:00	67	87	61	53

Statistics	Leq	Lmax	L50	L90
Day Average	66	83	60	52
Night Average	65	81	57	53
Day Low	63	79	54	48
Day High	68	87	64	57
Night Low	58	76	52	49
Night High	68	86	65	59
Ldn	71	Day %		71
CNEL	71	Night %		29

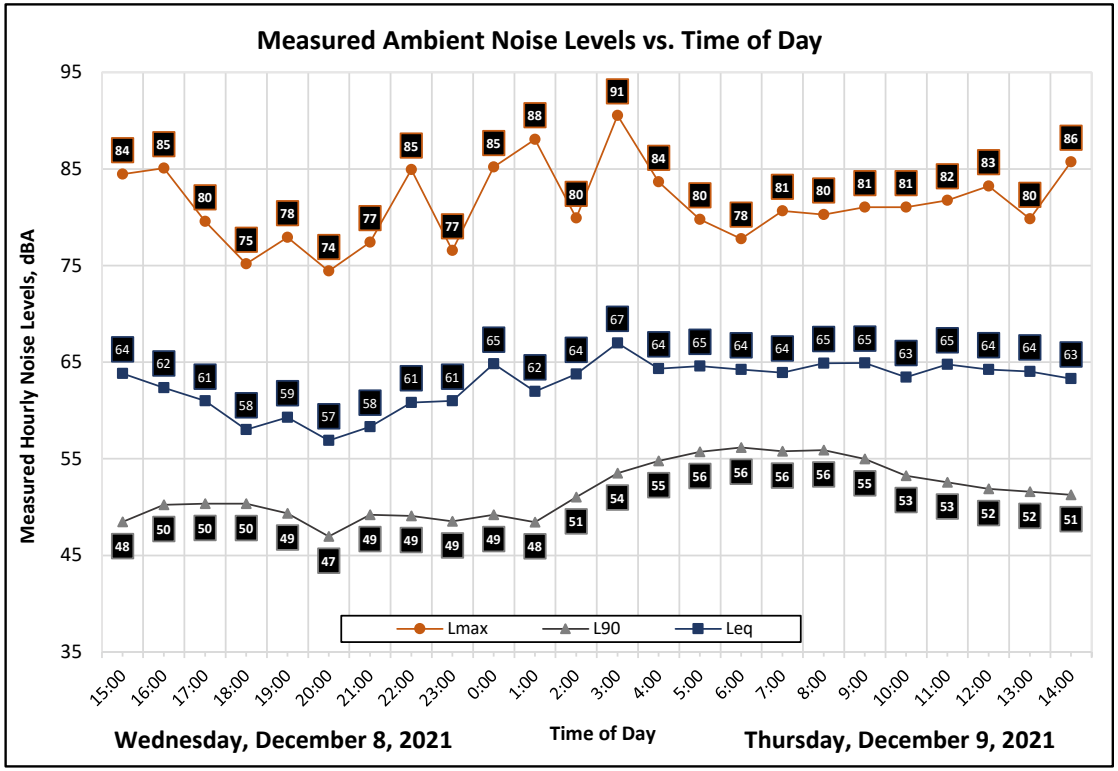


Appendix B2: Continuous Noise Monitoring Results

Site: LT-2
Project: Schulte Road Warehouse
Location: Eastern Project Boundary
Coordinates: 37.7207857°, -121.5129576°
Meter: LDL 820-5
Calibrator: CAL200

Date	Time	Measured Level, dBA			
		L_{eq}	L_{max}	L_{50}	L_{90}
Wednesday, December 8, 2021	15:00	64	84	56	48
Wednesday, December 8, 2021	16:00	62	85	56	50
Wednesday, December 8, 2021	17:00	61	80	55	50
Wednesday, December 8, 2021	18:00	58	75	54	50
Wednesday, December 8, 2021	19:00	59	78	53	49
Wednesday, December 8, 2021	20:00	57	74	52	47
Wednesday, December 8, 2021	21:00	58	77	52	49
Wednesday, December 8, 2021	22:00	61	85	53	49
Wednesday, December 8, 2021	23:00	61	77	52	49
Thursday, December 9, 2021	0:00	65	85	54	49
Thursday, December 9, 2021	1:00	62	88	51	48
Thursday, December 9, 2021	2:00	64	80	57	51
Thursday, December 9, 2021	3:00	67	91	59	54
Thursday, December 9, 2021	4:00	64	84	58	55
Thursday, December 9, 2021	5:00	65	80	60	56
Thursday, December 9, 2021	6:00	64	78	60	56
Thursday, December 9, 2021	7:00	64	81	59	56
Thursday, December 9, 2021	8:00	65	80	60	56
Thursday, December 9, 2021	9:00	65	81	59	55
Thursday, December 9, 2021	10:00	63	81	57	53
Thursday, December 9, 2021	11:00	65	82	57	53
Thursday, December 9, 2021	12:00	64	83	58	52
Thursday, December 9, 2021	13:00	64	80	57	52
Thursday, December 9, 2021	14:00	63	86	57	51

Statistics	Leq	Lmax	L50	L90
Day Average	63	81	56	51
Night Average	64	83	56	52
Day Low	57	74	52	47
Day High	65	86	60	56
Night Low	61	77	51	48
Night High	67	91	60	56
Ldn	70	Day %		56
CNEL	70	Night %		44



Appendix C: Traffic Noise Calculation Inputs and Results

Appendix C-1
FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 211113
Description: Schulte Road Warehouse - Existing
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	S Lammers Rd	North of W Schulte Rd	12,300	56	0	44	2.0%	5.0%	55	65	0	500	232	108	73.3
2	S Lammers Rd	South of W Schulte Rd	12,800	56	0	44	2.0%	5.0%	55	85	0	514	238	111	71.7
3	W Schulte Rd	West of S Lammers Rd	8,300	71	0	29	2.0%	5.0%	55	220	0	311	145	67	62.3
4	Hansen Rd	South of W Schulte Rd	930	56	0	44	2.0%	5.0%	45	115	0	69	32	15	56.7

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Appendix C-2

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 211113
Description: Schulte Road Warehouse - Existing + Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	S Lammers Rd	North of W Schulte Rd	12,315	56	0	44	2.0%	5.0%	55	65	0	501	232	108	73.3
2	S Lammers Rd	South of W Schulte Rd	12,862	56	0	44	2.0%	5.0%	55	85	0	515	239	111	71.7
3	W Schulte Rd	West of S Lammers Rd	8,377	71	0	29	2.0%	5.0%	55	220	0	313	145	67	62.3
4	Hansen Rd	South of W Schulte Rd	930	56	0	44	2.0%	5.0%	45	115	0	69	32	15	56.7

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Appendix C-3

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 211113
Description: Schulte Road Warehouse - Cumulative
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	S Lammers Rd	North of W Schulte Rd	44,100	56	0	44	2.0%	5.0%	55	65	0	1172	544	252	78.8
2	S Lammers Rd	South of W Schulte Rd	51,800	56	0	44	2.0%	5.0%	55	85	0	1304	605	281	77.8
3	W Schulte Rd	West of S Lammers Rd	10,300	71	0	29	2.0%	5.0%	55	220	0	360	167	77	63.2
4	Hansen Rd	South of W Schulte Rd	1,000	56	0	44	2.0%	5.0%	45	115	0	72	34	16	57.0
5	Valpico Rd	West of S Lammers Rd	12,900	56	0	44	2.0%	5.0%	45	75	0	397	184	86	70.9

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Appendix C-4

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 211113
Description: Schulte Road Warehouse - Cumulative + Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	S Lammers Rd	North of W Schulte Rd	44,140	56	0	44	2.0%	5.0%	55	65	0	1172	544	253	78.8
2	S Lammers Rd	South of W Schulte Rd	51,815	56	0	44	2.0%	5.0%	55	85	0	1305	606	281	77.8
3	W Schulte Rd	West of S Lammers Rd	10,355	71	0	29	2.0%	5.0%	55	220	0	361	167	78	63.2
4	Hansen Rd	South of W Schulte Rd	1,000	56	0	44	2.0%	5.0%	45	115	0	72	34	16	57.0
5	Valpico Rd	West of S Lammers Rd	12,912	56	0	44	2.0%	5.0%	45	75	0	397	184	86	70.9

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APPENDIX G

CEQA Traffic Analysis

Kimley»Horn

MEMORANDUM

From: Frederik Venter, PE and Colin Ogilvie | Kimley-Horn and Associates

To: Ben Ritchie | DeNovo Planning Group

Date: July 31, 2024

Re: 16286 West Schulte Road Warehouse - CEQA Transportation Analysis

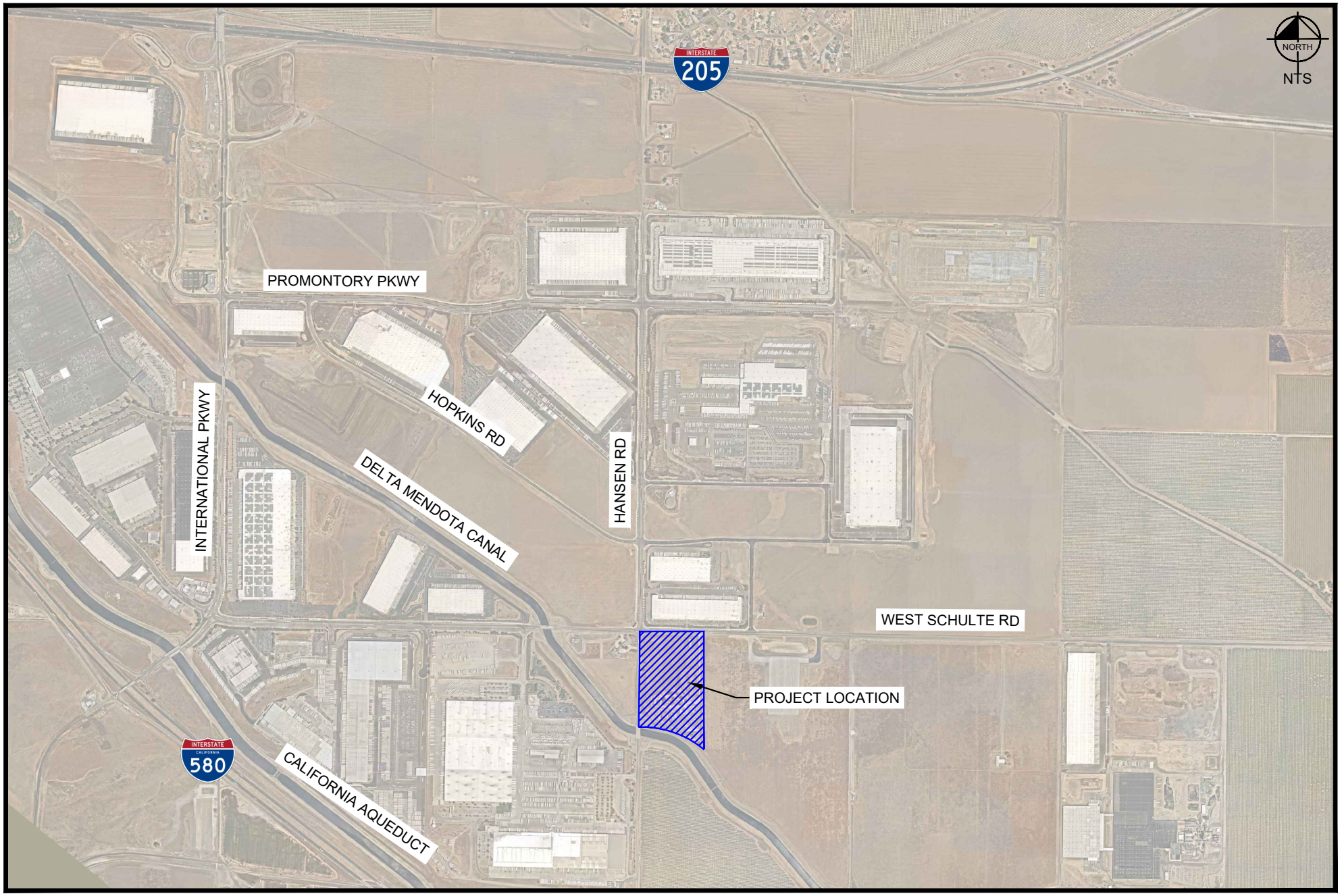
Introduction

The 16286 West Schulte Road development (the "Project") is located at 16286 West Schulte Road in San Joaquin County bound by West Schulte Road to the north, Hansen Road to the west, and the Delta Mendota Canal to the south. The site currently includes 20.92 acres that includes three single family homes and six ancillary structures under Assessor's Parcel Number (APN) 209-230-250. Figure 1 provides a Project vicinity map.

The 16286 West Schulte Road development has two alternatives:

- Alternative 1
  - Development of a single-story 217,466-square foot (sf), warehouse
  - 206 vehicle parking spaces
  - 116 trailer parking stalls
  - Access would be via two full movement locations along the future Hansen Road extension along the Delta-Mendota Canal and a right-in, right-out access on Schulte Road
- Alternative 2
  - Development of a truck and trailer parking lot with 344 parking spaces
  - Parking would be leased to current warehouses that need additional capacity for site operations
  - It is anticipated that this site would be exclusively used for trucks as all stalls provided are for truck and trailer parking only
  - Access would be from one location at the proposed new roundabout at Hansen Road and Hansen Road extension (to the east)

The layout of Alternative 1 and Alternative 2 is shown in Figure 2 and Figure 3, respectively. As part of the Project, the existing parcel would be annexed into the City of Tracy. The Hansen Road extension is not planned to be constructed east of the Project on opening day.



Kimley»Horn

Figure 1
Project Vicinity Map

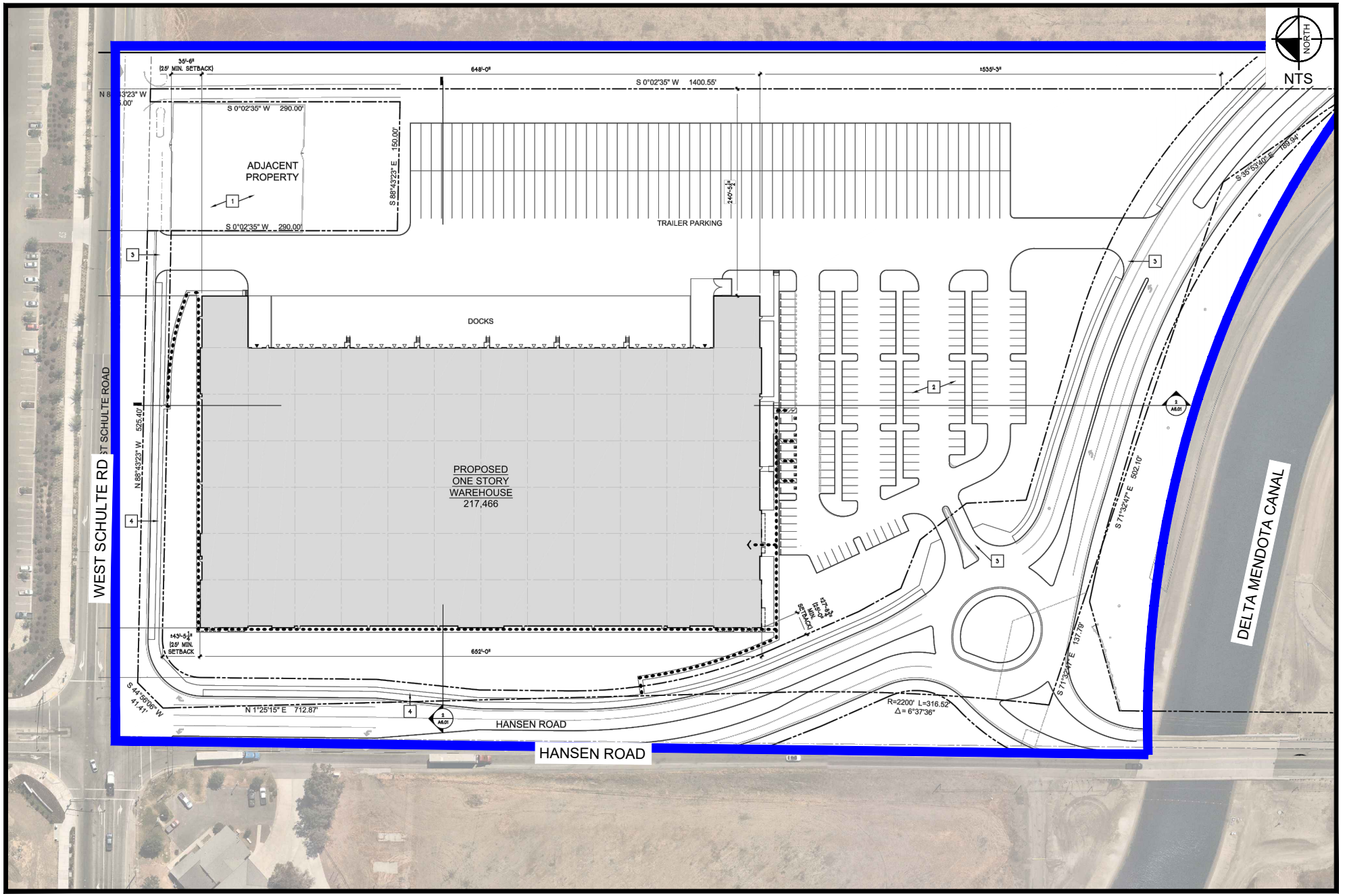


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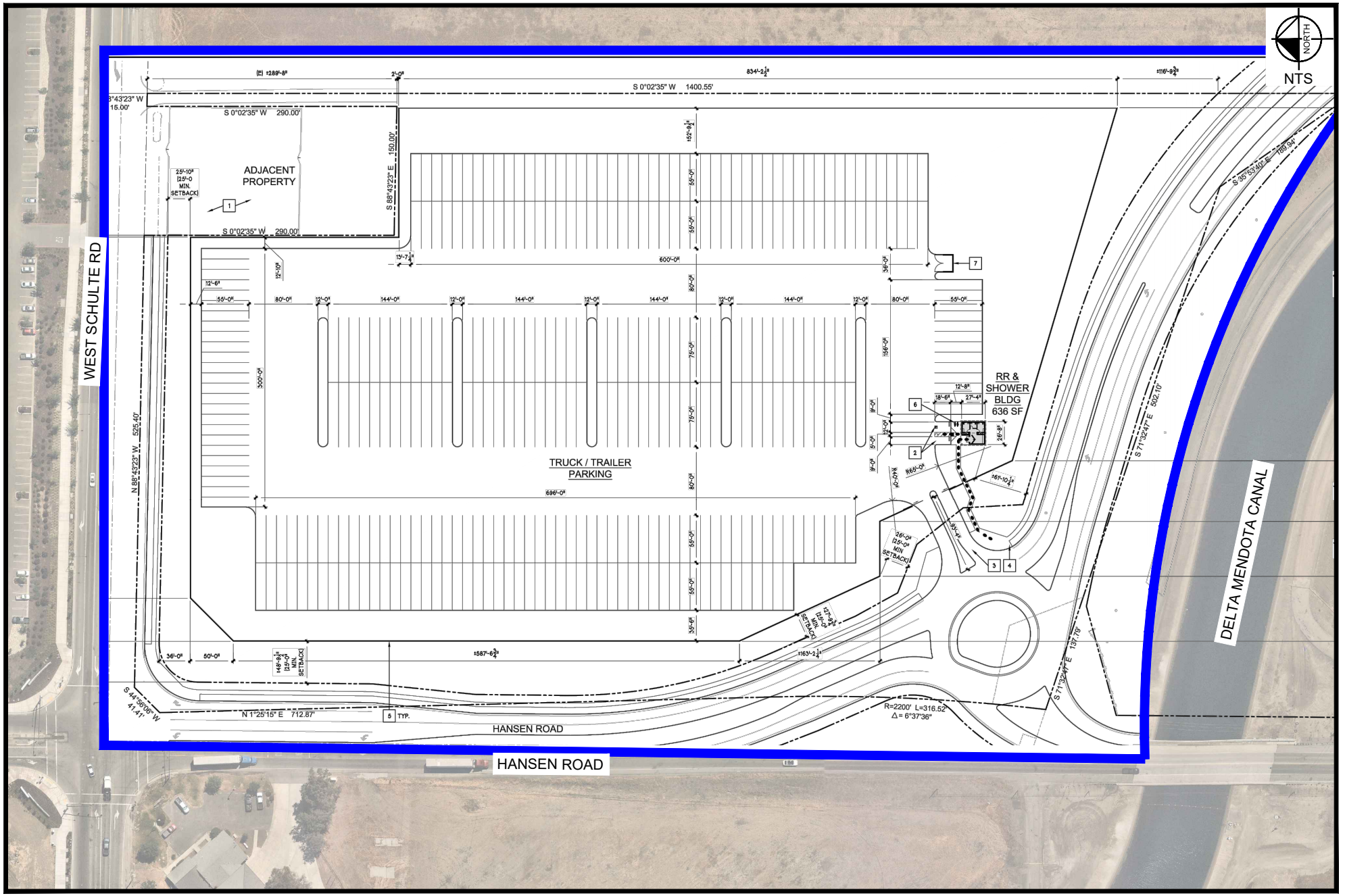
Figure 2

Alternative 1: Warehouse



Kimley»Horn

Figure 3
Alternative 2: Truck Parking Lot

Kimley»Horn

Trip Generation

Trip generation for the proposed Project was calculated using the data provided by the City of Tracy and supplemental data from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition (2021)*.

Alternative 1: Warehouse

For Alternative 1, the City of Tracy Industrial (Other) rates from the City of Tracy *Transportation Master Plan* (TMP) were utilized for trip generation with supplemental data provided by the Institute of Traffic Engineers (ITE) "Trip Generation Manual," 11th Edition. The following land use code (LUC) best represented the Project's proposed land use and was utilized to determine daily trip generation, AM/PM peak hour inbound/outbound splits, and truck/passenger car splits:

- LUC 150 – Warehousing

The proposed Project is anticipated to generate a total of 382 weekday daily trips, 37 weekday AM peak hour trips (28 IN / 9 OUT), and 72 weekday PM peak hour trips (20 IN / 52 OUT). Table 1 provides the estimated trip generation.

Table 1: Alternative 1 Trip Generation

Land Uses	Project Size	Daily[2]	AM Peak Hour				PM Peak Hour			
			Total Peak Hour	In	/	Out	Total Peak Hour	In	/	Out
Trip Generation Rates										
City of Tracy (Other)[1]	- ksf	-	0.17	77%	/	23%	0.33	28%	/	72%
Trips Generated										
Building 1	217.466 ksf	382	37	28	/	9	72	20	/	52
Passenger Cars[2]		*248*	*33*	*25*	/	*8*	*60*	*17*	/	*43*
Trucks[2]		*134*	*4*	*3*	/	*1*	*12*	*3*	/	*9*

NOTES

1. City of Tracy TMP rates are used for AM and PM peak hour rates. Institute of Transportation Engineers (ITE), "Trip Generation Manual," 11th Edition, LU 150 – Warehouse is used for Daily trip rate and AM/PM peak hour distribution percentages.
2. Daily trips utilize the following ITE equation for LU 150: T = 1.58(X) + 38.29
3. Passenger car and truck percentages are estimated based on the ITE "Trip Generation Manual," 11th Edition for LU 150.

Alternative 2: Truck Parking Lot

Trip generation for Alternative 2, the truck parking lot, is not provided in this memorandum, because it was not required to complete the Transportation, Air Quality or Noise CEQA analyses.

Kimley»Horn

Vehicle Miles Traveled (VMT) Analysis

Introduction

In 2018, the California state legislature, in approving Senate Bill (SB) 743, directed the Office of Planning and Research (OPR) to develop guidelines for assessing transportation impacts based on vehicle miles traveled, or VMT. In response to SB 743, CEQA and its implementing guidelines (CEQA Guidelines) were significantly amended regarding the methods by which lead agencies are to evaluate a Project's transportation impacts. As described in CEQA Guidelines Section 15064.3(a):

Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a Project. Other relevant considerations may include the effects of the Project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a Project's effect on automobile delay shall not constitute a significant environmental impact.

OPR uses "automobile travel" as a basis for VMT, which means that trucks are excluded from VMT analysis.

This section of the Guidelines continues to set forth the criteria for analyzing transportation impacts. Currently, the City is studying their own thresholds, but none have been adopted.

In 2013, SB 743 was signed into law by California Governor Jerry Brown with a goal of reducing Greenhouse Gas (GHG) emissions, promoting the development of infill land use Projects and multimodal transportation networks, and to promote a diversity of land uses within developments. One significant outcome resulting from this statue is the removal of automobile delay and congestion, commonly known as level of service (LOS), as a basis for determining significant transportation impacts under the California Environmental Quality Act (CEQA).

OPR has documented recommended analysis guidelines for SB 743 in its *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018) which provides for Vehicle Miles Traveled (VMT) as the principal measure to replace LOS for determining significant transportation impacts. VMT is a measure of total vehicular travel that accounts for the number of vehicle trips and the length of those trips. OPR selected VMT, in part, because jurisdictions are already familiar with this metric. VMT is already used in CEQA to study other potential impacts such as GHG, air quality, and energy impacts and is used in planning for regional Sustainable Communities Strategies (SCS).

VMT also allows for an analysis of a Project's impact throughout the jurisdiction rather than only in the vicinity of the proposed Project allowing for a better understanding of the full extent of a Project's transportation-related impact. It should be noted that SB 743 still allows the City of Tracy to use LOS for other planning purposes outside the scope of CEQA.

Understanding how the local roadway network functions from an engineering standpoint is still critical to local land use agencies to monitor traffic flow, identify safety issues, establish fees and manage congestion. However, for the purposes of evaluating environmental impacts under CEQA, the new regulations have removed congestion from the range of required subjects analyzed within CEQA documents.

VMT Findings

Per the City's Draft VMT Policy, a VMT analysis was conducted for the proposed Project for automobile (employee) trips only. The purpose of the VMT analysis was to measure the transportation impact of the new development and provide recommended mitigation measures.

Alternative 1: Warehousing

For the surrounding industrial land use area, the City's draft threshold is 9.4 VMT per employee. This threshold is based on existing VMT for countywide employment, reduced by 15% per SB 743 guidelines and the CEQA guidelines. The proposed warehouse was evaluated using the City of Tracy Draft VMT Policy Calculator. The purpose of the tool is to calculate VMT for a land use project to determine whether there is a significant transportation impact based on VMT and to determine the effects of various mitigation options. The evaluation tool estimated that the proposed Project would generate 25 VMT per employee. Per OPR guidance, the VMT analysis excludes truck trips. As a result, the proposed Project would exceed the threshold by 166%.

Per the City's Draft VMT Policy threshold, which is consistent with SB 743 guidelines, the proposed Project's potential increase in VMT would result in a significant transportation impact. For projects that would cause a VMT impact, VMT reduction strategies such as introducing Transportation Demand Management (TDM), or additional multimodal infrastructure can, according to research literature and case studies, be used to potentially mitigate the VMT impact. Table 2 lists the potential TDM measures that could partially mitigate the proposed Project's VMT impact and, also, shows the estimated maximum TDM reduction that each strategy could achieve.

In addition to the opportunity to mitigate, to the extent feasible, the proposed Project's VMT impacts via implementation of a TDM program, the City also has a Draft VMT Banking Fee Program through which, once adopted, would provide an alternative method to mitigate, to the extent feasible, Project VMT impacts. The VMT Mitigation Banking Fee Program is a programmatic approach to respond to the need for feasible VMT mitigation programs. Programmatic approaches that rely on collectively funding larger Projects allow a Project to provide an amount of mitigation commensurate with its respective impact, include only a single payment without the complexity of ongoing management issues that often occur in connection with TDM programs, and do not require ongoing mitigation monitoring. Programmatic approaches can also provide a public benefit in terms of funding transportation improvements that would not otherwise be constructed, resulting in improvements to congestion, a reduction in greenhouse gas (GHG) emissions, increased transportation choices, and additional opportunities for active transportation.

The California Air Pollution Control Officers Association (CAPCOA) states that for suburban communities, such as Tracy, a feasible reduction of 15 percent could be achieved. The City, in its discretion, has elected to utilize this 15 percent threshold as the feasible amount by which the proposed Project would need to mitigate. In other words, each relevant applicant would need to reduce its VMT that would otherwise occur in connection with implementation of the relevant individual development proposal by 15 percent (as compared to what would occur without mitigation).

The City's Draft VMT Mitigation Banking Fee Program calculates the cost per one (1) VMT reduction as $633.11. However, the VMT Mitigation Banking Fee Program has not yet been finalized and adopted; accordingly, the applicable fee would be the amount provided for under the Mitigation Banking Fee Program adopted by the City Council and effective at the time the applicant obtains building permits.

Since it is unknown if the Mitigation Banking Fee Program will be adopted at the time this Project applies for building permits, two VMT mitigation strategies are outlined below.

Option 1 – TDM Measures Plus VMT Mitigation Banking Fee

Option 1 includes a combination of TDM measures plus a VMT Mitigation Banking Fee for the Project to achieve 15% VMT reductions. The Applicant has chosen to implement TDM measures estimated to be equivalent to a 8% reduction in VMT for the Project. See Table 2 for the proposed list of TDM measure under this option. Therefore, the Project shall mitigate the remaining 7% of VMT reductions via a VMT Banking Fee payment. The 7% VMT reduction required equates to 1.75 VMT per employee that needs to be mitigated. Per the City of Tracy Transportation Master Plan (TMP), it is estimated that industrial land uses have an employee-to-area ratio of 1 employee/1,000 square feet. Therefore, the Project is assumed to have 217 employees. The payment calculation is shown below with additional detail shown in Table 3. The total payment is $240,423.52.

*VMT Banking Fee = 217 employees * 1.75 VMT/employee * $633.11/VMT = $240,423.52*

Option 2 – TDM Measures Only

Alternatively, as a second option, if the draft VMT Mitigation Banking Fee Program is not adopted at the time a development is apply for permits, the development would be required to provide TDM measures that fully reduce the VMT by 15%. See Table 2 for the proposed list of TDM measures under this option.

Alternative 2: Truck Parking Lot

Alternative 2 was reviewed for VMT analysis and was determined to be exempt, because the Project will be exclusively used by trucks, which are exempt from VMT analysis. The employees that would collect and park trailers would be located at nearby warehouses and would not be assumed to be based at the Project site.

Table 2 – TDM Measures

Transportation Demand Management Measure	Description	Max VMT Reduction	Option 1 TDM Measures[2]	Option 2 TDM Measures[3]	VMT Reduction Applied
Parking Strategies					
Reduce Parking Supply	Reduce the number of available parking spots provided to employees.	1%	X	X	1%
Unbundle Parking	Remove free parking at the site, and charge employees for parking. The higher the cost of parking, the higher the reduction.	1%			0%
Parking Cash-out	Provide employees a choice of forgoing current parking for a cash payment to be determined by the employer. The higher the cash payment and eligible employees, the higher the reduction.	2%		X	2%
Transit Strategies					
Transit Stops	Coordinate with local transit agency to provide bus stop near the site. Real time transportation information displays support on-the-go decision making to support sustainable trip making.	1%			0%
Implement Neighborhood Shuttle	Implement Project-operated or Project-sponsored neighborhood shuttle serving residents, employees, and visitors of the Project site	2%			0%
Transit Subsidies	Involves the subsidization of transit fare for residents and employees of the Project site. This strategy assumes transit service is already present in the Project area.	2%			0%
	Pays for employees to use local transit. This could either be a discounted ticket or a full-reimbursed transit ticket.				0%
Communication & Information Strategies					
Travel Behavior Change Program	Involves the development of a travel behavior change program that targets individuals' attitudes, goals, and travel behaviors, educating participants on the impacts of their travel choices and the opportunities to alter their habits. Provide a web site that allows employees to research other modes of transportation for commuting. Employee-focused travel behavior change program that targets individuals' attitudes, goals, and travel behaviors, educating participants on the impacts of their travel choices and the opportunities to alter their habits. DIBS	1%	X	X	1%
Promotions & Marketing	Involves the use of marketing and promotional tools to educate and inform travelers about site-specific transportation options and the effects of their travel choices with passive educational and promotional materials. Marketing and public information campaign to promote awareness of TDM program with an on-site coordinator to monitor program. DIBS	1%	X	X	1%
Commuting Strategies					
Employer Sponsored Vanpool or Shuttle	Implementation of employer-sponsored employee vanpool or shuttle providing new opportunities for access to connect employees to the Project site.	2%		X	2%
Emergency Ride Home (ERH) Program	Provide an occasional subsidized ride to commuters who use alternative modes. Guaranteed ride home	1%	X	X	1%

Table 2 – TDM Measures (Cont.)

Transportation Demand Management Measure	Description	Max VMT Reduction	Option 1 TDM Measures[2]	Option 2 TDM Measures[3]	VMT Reduction Applied
	for people if they need to go home in the middle of the day due to an emergency or stay late and need a ride at a time when transit service is not available. DIBS				
Telecommuting Alternative work schedule	Four-Ten work schedule results in 20% weekly VMT reduction, 10% trip reduction equals 15% VMT reduction	7%			0%
On-site Childcare	Provide on-site childcare to remove the need to drive a child to daycare at a separate location.	1%			0%
Shared Mobility Strategies					
Ride Share Program	Increase vehicle occupancy by providing ride-share matching services, designating preferred parking for ride-share participants, designing adequate passenger loading/unloading and waiting areas for ride-share vehicles, and providing a website or message board to connect riders and coordinate rides. Need a point person for the business on-site	2%		X	2%
Employee/Employer Car Share	Implement car sharing to allow people to have on-demand access to a vehicle, as-needed. This may include providing membership to an existing program located within 1/4 mile, contracting with a third-party vendor to extend membership-based service to an area, or implementing a Project-specific fleet that supports the residents and employees on -site.	1%			0%
	Provide an on-site car vehicle for employees to use for short trips. This allows for employees to run errands or travel for lunch.			X	1%
Designated Parking Spaces for Car Share Vehicles	Reserved car share spaces closer to the building entrance.	1%	X	X	1%
Bicycle Infrastructure Strategies					
Bike Share Program	Participate in a bike share program/On site bike share program	1%			0%
Implement/Improve On-street Bicycle Facility	Implement or provides funding for improvements to corridors and crossings for bike networks identified within a one-half mile buffer area of the Project boundary, to support safe and comfortable bicycle travel.	1%		X	1%
Include Bike Parking Per City Code	Implement short and long-term bicycle parking to support safe and comfortable bicycle travel by providing parking facilities at destinations	1%	X	X	1%
Include Secure Bike Parking and Showers	Implement additional end-of-trip bicycle facilities to support safe and comfortable bicycle travel.	1%		X	1%
Bicycle Repair Station / Services	On-site bicycle repair tools and space to use them supports on-going use of bicycles for transportation.	1%		X	1%
Neighborhood Enhancement Strategies					
Traffic Calming Improvements	Implement traffic calming improvements on streets and intersections throughout and around the Project site.	1%			0%

Table 2 – TDM Measures (Cont.)

Transportation Demand Management Measure	Description	Max VMT Reduction	Option 1 TDM Measures[2]	Option 2 TDM Measures[3]	VMT Reduction Applied
Pedestrian Network Improvements	Implement pedestrian network improvements throughout and around the Project site that encourages people to walk.	2%	X		2%
Miscellaneous Strategies					
Virtual Care Strategies for Hospitals	Implement options for virtual care for health services for hospitals.	2%			0%
On-Site Affordable Housing	Provide a percentage of on-site affordable housing for employees that is less than 100%.	1%			0%
Job Creation Land Use (e.g. Office)	Provide offices or other job creation land use. Applies to housing Projects.	3%			0%

Notes:

1. DIBS is a transportation program designed by the San Joaquin Council of Governments to incentivize carpooling or alternative modes of transportation. The website is located here: https://www.dibsmyway.com/
2. Minimum applied TDM measures are applicable with the Project paying its applicable VMT Mitigation Banking Program fee.
3. Maximum applied TDM measures are applicable if the Project does not pay its applicable VMT Mitigation Banking Program fee or if the VMT Mitigation Banking Program is not adopted at the time the Project applies for permits.

Table 3: VMT Banking Fee

City VMT Policy	
Industrial VMT/Employee Threshold	9.40
Maximum VMT Reduction	15%
VMT Mitigation Banking Fee	$633.11
Proposed Project Description	
Building Area (ksf[1])	217.4
Employees per ksf	1
Employees	217
Proposed Project VMT Screencheck	
VMT/Employee[2]	25
Total Employee VMT	5,425.0
VMT/Employee Compared to City Threshold	166%
VMT Reductions	
Via TDM[3]	8%
Via Mitigation Banking Fee	7%
Total	15%
VMT Mitigation Banking Fee	
Total Employee VMT Reduction via Mitigation Banking Fee	379.8
Total Employee VMT/EMP Reduction via Mitigation Banking Fee	1.75
Proposed Project Mitigation Banking Fee[4]	$240,423.52

Notes:

1. ksf = thousand square feet
2. . Based on the City of Tracy's map-based VMT screening for employment
3. See Table 3
4. Proposed Project Mitigation Banking Fee = City VMT Mitigation Banking Fee * Project Total Employee VMT Reduction

APPENDIX H

Hydraulic Evaluation

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TECHNICAL MEMORANDUM

DATE: February 4, 2022

Project No.: 404-60-22-78
SENT VIA: EMAIL

TO: Robert Armijo, City of Tracy

CC: Paul Verma, City of Tracy
Al Gali, City of Tracy

FROM: Roger Chu, PE, RCE #87591
Chris Pittner, QISP, PE, RCE #93576

REVIEWED BY: Amy Kwong, PE, RCE #73213

SUBJECT: Hydraulic Evaluation of Schulte Warehouse

This Technical Memorandum (TM) summarizes West Yost's technical evaluation of the ability of the City of Tracy's (City) existing potable water distribution system to meet the required minimum pressures and flows for the proposed Schulte Warehouse Project (Project).

This TM is submitted in accordance with West Yost's October 2021 Scope of Services for engineering services to the City. The scope of this evaluation does not include review of water supply availability or water treatment plant capacity for the Project; these items are discussed in other documents, such as the City's Water System Master Plan and the "Evaluation of Near-Term Water Demand and Water Supply" TM (Near-Term TM).[1] In addition, this evaluation does not determine the adequacy of on-site private pipelines to serve the Project.

The following sections summarize West Yost's findings and conclusions:

- Project Description
- Estimated Water Demand for the Project
- Storage and Pumping Capacity Evaluation
- Hydraulic Evaluation Findings
- Summary of Evaluation and Recommendations

[1] "Evaluation of Near-Term Water Demand and Water Supply," West Yost Associates, November 9, 2021.

PROJECT DESCRIPTION

The Project is located outside the existing City limits (Westside Industrial Development Area) but within the City's Sphere of Influence (SOI); southeast of the intersection of West Schulte Road and Hansen Road. The Project site is approximately 20.9 acres and will consist of one building with approximately 217,000 square feet of warehouse and office space with associated parking and landscaping.

Potable water service for the Project will be served by existing Pressure Zone 2 (Zone 2) pipelines located in West Schulte Road and Hansen Road. Project plans do not specify the diameters for the proposed pipelines for the Project. To meet the City's pipeline velocity criterion, it is recommended that these pipelines be 12-inches in diameter.

This TM evaluates the impacts of the Project to the City's potable water distribution system under both existing and future alternative system operations. In both scenarios, it is assumed that the 16-inch diameter pipeline in Promontory Parkway east of Hansen Road is in service, and that the eastern portion of Cordes Ranch is served by Zone 2.

Under existing system operations, it is assumed that the Cordes Tank and Booster Pump Station (PS) (including the Pressure Regulating Station) are operational, and that the Project is primarily supplied by Zone 2 facilities via the existing 24-inch diameter pipeline in West Schulte Road. Figure 1 shows the proposed public water system infrastructure serving the Project under existing system operations.

Under future alternative system operations, Zone 3 facilities serving Cordes Ranch will be connected directly to the John Jones Water Treatment Plant (JJWTP). This will be achieved by rezoning the existing 24-inch diameter pipeline in Schulte Road to Zone 3. This scenario also assumes completion of the recommended rezoning improvements along Hood Way[2] and Lammers Road.[3] Under alternative system operations, the Project would still be supplied via the 24-inch diameter pipeline in Schulte Road, but water would be delivered at higher pressures than under existing system operations. Figure 2 shows the public water system infrastructure serving the Project under future alternative system operations.

ESTIMATED WATER DEMAND FOR THE PROJECT

Water demands were estimated for the Project site using the unit water demand factors adopted in the 2020 Citywide Water System Master Plan update (2020 WSMP). Table 1 shows the Project's proposed land use, water use factors, and projected annual potable water use. The total potable water demand for the Project (domestic and irrigation) is estimated at 32.2 acre-feet per year (af/yr).

This evaluation assumes potable water will be used to meet all Project water demands. The City has yet to construct infrastructure to deliver recycled water to the Project, so potable water will be used to meet non-potable water demands in the interim. Once the City's recycled water system can supply the Project, potable water demands should decrease.

[2] "Design Recommendations for Hood Way Pipeline," West Yost Associates, June 13, 2019.

[3] "Design Recommendations for Lammers Road Pipeline," West Yost Associates, June 13, 2019.

Table 1. Estimated Annual Water Demand for the Project

Land Use Designation	Total Area[a], gross acres	Potable Water Use Area[b], acres	Landscaped Area[c], acres	Unit Potable Water Use Factor[d], af/acre/yr	Annual Potable Water Use, af/yr
Industrial	20.9	17.8		1.3	23.1
		--	3.1	1.9	6.0
UAFW[e]	--	--	--	--	3.1
Total	**20.9**	**17.8**	**3.1**	**--**	**32.2**

(a) New Warehouse Building, 16286 W Schulte Rd, Development Review and Rezoning Plans, dated June 23, 2021.
(b) Consistent with the 2020 WSMP, 85 percent of gross acres are assumed to use potable water.
(c) Consistent with the 2020 WSMP, 15 percent of gross acres are assumed to be landscaped.
(d) Based on the 2020 WSMP.
(e) Unaccounted-for water (UAFW) is equal to 9.6 percent.

Table 2 summarizes the estimated average day, maximum day, and peak hour water demands for the Project. The average day demand (ADD) for the Project is approximately 19.9 gallons per minute (gpm). Maximum day demands (MDD) and peak hour demands (PHD) were calculated using the City's peaking factors (adopted in the 2020 WSMP) of 1.7 and 2.9 times the ADD, respectively, resulting in an MDD of about 33.8 gpm and a PHD of about 57.7 gpm.

Table 2. Summary of Average Day, Maximum Day, and Peak Hour Water Demands for the Project

Average Day Demand[a]		Maximum Day Demand[b]		Peak Hour Demand[c]	
gpm	mgd[d]	gpm	mgd	gpm	mgd
19.9	0.03	33.8	0.05	57.7	0.08

(a) The ADD is based on the total annual potable water use calculated in Table 1.
(b) MDD Is 1.7 times the ADD, per the 2020 WSMP.
(c) PHD is 2.9 times the ADD, per the 2020 WSMP.
(d) mgd = million gallons per day

STORAGE AND PUMPING CAPACITY EVALUATION

The storage requirement for the City's potable water system consists of three components:

- **Operational Storage**: 30 percent of a maximum day demand
- **Emergency Storage**: 1.5 times an average day demand
- **Fire Flow Storage**: The required fire flow rate multiplied by the associated fire flow duration period

While the required fire flow storage component for the Project would be shared with the other proposed and existing developments, the operational and emergency storage components from the Project would increase the City's operational and emergency storage requirements by 14,600 and 43,000 gallons, respectively. Storage facilities in Zone 1 and Zone 2 would serve the Project under existing system operations, while storage facilities in Zone 3 (Cordes Tank) would serve the Project under future alternative system operations.

Based on the City's storage capacity evaluation criteria and after accounting for the Project's storage requirements, there is surplus storage capacity under both existing and future alternative system operations. Zone 1 and Zone 2 storage facilities have a combined surplus of approximately 2.6 million gallons (MG) under existing operations, and Cordes Tank has a storage capacity surplus of approximately 0.1 MG under alternative system operations.

The Project would increase the City's overall maximum day and peak hour demands by approximately 33.8 and 57.7 gpm, respectively. Under existing system operations, the Project will rely on Zone 2 facilities to provide pumping capacity. Based on the City's available pumping capacity in Zones 1 and 2, there is currently sufficient pumping capacity to adequately serve the Project.

Under future alternative system operations, the Project would rely on the combined Zone 3 facilities to provide pumping capacity. While there is sufficient pumping capacity in Zone 3 to meet maximum day demands plus fire flow, both the Cordes PS and the Zone 3 Booster Pump Station (Z3 PS) at the JJWTP would need to operate simultaneously to meet maximum day demands in Zone 3 during a 4,500-gpm fire flow condition. Similar to the storage capacity evaluation, this condition includes demands from the Project as well as other existing and proposed Zone 3 developments (e.g., Costco Depot and all phases of the Ellis Specific Plan).

This simultaneous pump station operation would require adjustment to the recommended Z3 PS ultimate operating conditions as outlined in the "Operation of the City-Side Pressure Zone 3 Pump Station and Tracy Hills Zone 3 Pump Station" TM,[4] which assumed that the Cordes PS could provide maximum day demand plus fire flow for Zone 3 at buildout. When the City is closer to implementing the alternative system operations, further evaluation is required to develop a plan for operating the Cordes PS and Z3 PS simultaneously under alternative system operations to confirm that maximum day plus fire flow demands can be adequately served. It should also be noted that the existing Z3 PS is only the first phase of its planned buildout. The need for and timing of additional pumping capacity from the second phase of the Z3 PS will be evaluated in future studies.

HYDRAULIC EVALUATION FINDINGS

Hydraulic evaluation of the Project is based on system performance and operational criteria developed in the 2020 WSMP. These criteria are provided in Attachment A for reference. The City's existing developer hydraulic model[5] was updated to include the water demands for the Project. This updated model was then used to simulate PHD and MDD plus fire flow conditions to determine the Project's impacts under existing and future alternative system operations. Results from this hydraulic evaluation are discussed below.

Peak Hour Demand Evaluation – Existing Operations

Figure 3 shows system pressures and pipeline velocities during a PHD condition under existing system operations. Pressure at the Project's domestic service connection point in Hansen Road is approximately 25 pounds per square inch (psi). The existing system cannot provide 40 psi at the Project's service connection point because the Project is located at approximately 190 feet (ft) of elevation, which is above

[4] West Yost Associates, Operation of the City-Side Pressure Zone 3 Pump Station and Tracy Hills Zone 3 Pump Station, July 10, 2018.

[5] The City's developer hydraulic model includes all previously evaluated development projects and is separate from the 2020 WSMP model. Refer to Attachment A for list of development projects included.

the maximum Zone 2 service elevation of 150 ft. Velocities in the proposed Project pipelines do not exceed the maximum pipeline velocity limit of 8 feet per second (fps).

Maximum Day Demand plus Fire Flow Evaluation – Existing Operations

To meet fire flow requirements, the water system must be able to provide 4,500 gpm to the Project site during an MDD condition, while maintaining 20 psi residual system pressure (primary criterion) and pipeline velocities below 12 fps (secondary criterion). Figure 4 shows whether sufficient fire flow is available using these criteria under existing system operations. Results are displayed at evaluated locations within Zones 2 and 3 near the Project. Fire flow deficiencies occur along the existing 24-inch diameter pipeline in West Schulte Road and the new 12-inch diameter pipeline loop. These deficiencies are due to the Project being located above the maximum Zone 2 service elevation.

Peak Hour Demand Evaluation – Alternative Operations

Figure 5 shows system pressures and pipeline velocities during a PHD condition under future alternative system operations. In the alternative operations scenario, simulated pressures and pipeline velocities meet the City's water system performance criteria. Pressure at the Project's domestic service connection point in Hansen Road is approximately 75 psi. Because system pressures exceed 80 psi within the Project site under future alternative system operations, it is recommended that pressure reducing valves are installed on all of the Project's service laterals. Velocities in the proposed Project pipelines do not exceed the maximum pipeline velocity limit of 8 fps.

Maximum Day Demand plus Fire Flow Evaluation – Alternative Operations

Figure 6 shows whether sufficient fire flow is available during an MDD condition under future alternative system operations. Results are displayed at evaluated locations within Zone 3 near the Project. All evaluated locations meet or exceed the minimum fire flow requirement under future alternative system operations.

SUMMARY OF EVALUATION AND RECOMMENDATIONS

Based on storage capacity criteria in the 2020 WSMP, the City currently has sufficient storage capacity in Zones 1 and 2 (existing system operations) and Zone 3 (future alternative system operations) to meet the needs of the proposed Project.

Under existing system operations, the City has sufficient pumping capacity in Zones 1 and 2 to adequately serve the Project. Under future alternative system operations, the City has sufficient pumping capacity in Zone 3, but both the Cordes PS and the Z3 PS would need to operate simultaneously during a fire. These operational recommendations and the potential need for additional Zone 3 pumping capacity will be evaluated in future studies.

Under existing system operations, the City's existing water system infrastructure cannot provide the required flows and pressures to the Project during a PHD condition or an MDD plus fire flow condition. This is because the Project is located above the maximum Zone 2 service elevation of 150 ft. To meet the City's system performance requirements under existing system operations, the Project must either:

1. **Install Private, On-site Booster Pumps**: At least one 60-gpm booster pump would be installed to provide adequate service pressure to the Project during a PHD condition. An additional on-site booster pump may also be needed to provide redundancy. To meet fire flow requirements, Project proponents will likely need to also install an on-site fire pump. The fire pump size would depend on the Project's specific fire flow requirements as determined by the South San Joaquin County Fire Authority (SSJCFA). The 4,500-gpm requirement used in this evaluation is a conservative value for industrial land uses. Depending on the specific building materials and construction methods used, the SSJCFA may reduce the Project's fire flow requirements.
2. **Revise Project Connections:** To avoid the pressure and fire flow deficiencies identified when supplied by Zone 2 (i.e., under existing system operations), the Project could connect directly to Zone 3 from the start. This would consist of the following changes: (1) for the proposed pipeline in Hansen Road, instead of connecting to the existing 24-inch diameter Zone 2 pipeline at the intersection of Hansen Road and West Schulte Road, connect to the existing 24-inch diameter Zone 3 pipeline at the same intersection; and (2) for the connection in West Schulte Road, install approximately 550 ft of new, 12-inch diameter Zone 3 pipeline in West Schulte Road and connect to the existing 24-inch diameter Zone 3 pipeline at the intersection of Hansen Road and West Schulte Road. Preliminary hydraulic model results indicate that this option would provide adequate service to the Project.

While both options are hydraulically adequate, Option 1 appears to be more feasible for the Project because it would likely be less expensive than installing a new pipeline in West Schulte Road.

Once the 24-inch diameter pipeline in West Schulte Road is re-zoned to Zone 3 under alternative system operations, the existing water system infrastructure would be sufficient to meet the required flows, pressures, and velocities during both a PHD condition and a MDD plus fire flow condition. However, because pressures at the Project will exceed 80 psi under alternative system operations, it will be necessary to install a pressure reducing valve on the Project's domestic water service line after the transition to alternative system operations. Under future alternative system operations, the on-site booster pump(s) recommended above for existing system operations would no longer be needed.

In summary, West Yost's recommendations are to:

- Size the proposed Project pipelines to be 12-inches in diameter.
- Install at least one 60-gpm, on-site booster pump to serve the Project. An additional booster pump may be necessary for redundancy.
- Discuss the Project's fire flow requirement with the SSJCFA. If the SSJCFA determines that the fire flow requirement for the Project is greater than 2,000 gpm, install an appropriately sized fire pump.
- Install a pressure reducing valve on the Project's domestic water service line after the transition to alternative system operation.

While this TM did not evaluate water supplies to serve the Project, it was included in the Near-Term TM, which evaluated the City's water demand and water supply conditions through 2025. The City has indicated that development impact fees need to be paid by new development to fund future water supply projects to provide adequate water supplies.

The hydraulic evaluation performed for the proposed Project is based on the various assumptions stated above. If any of these items are changed or modified in any way, other than as described in this TM, additional hydraulic evaluation will be required.

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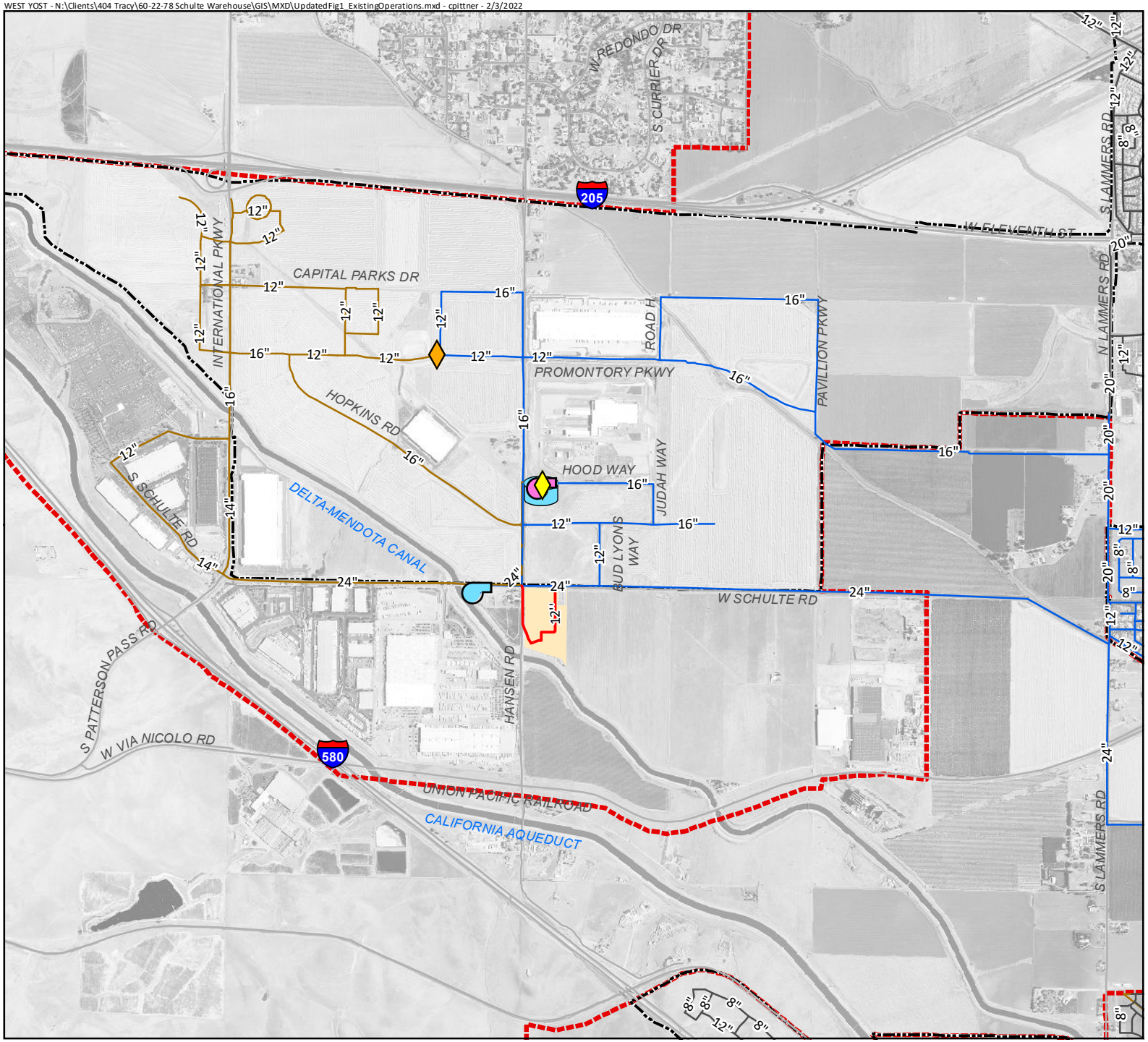

N

0 1,250 2,500

Scale in Feet

Pipeline Zone

- Zone 2 - Proposed
- Zone 2 - Existing
- Zone 3 - Existing
- Other - Existing
- Cordes Pressure Regulating Station
- Promontory Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit
- Sphere of Influence

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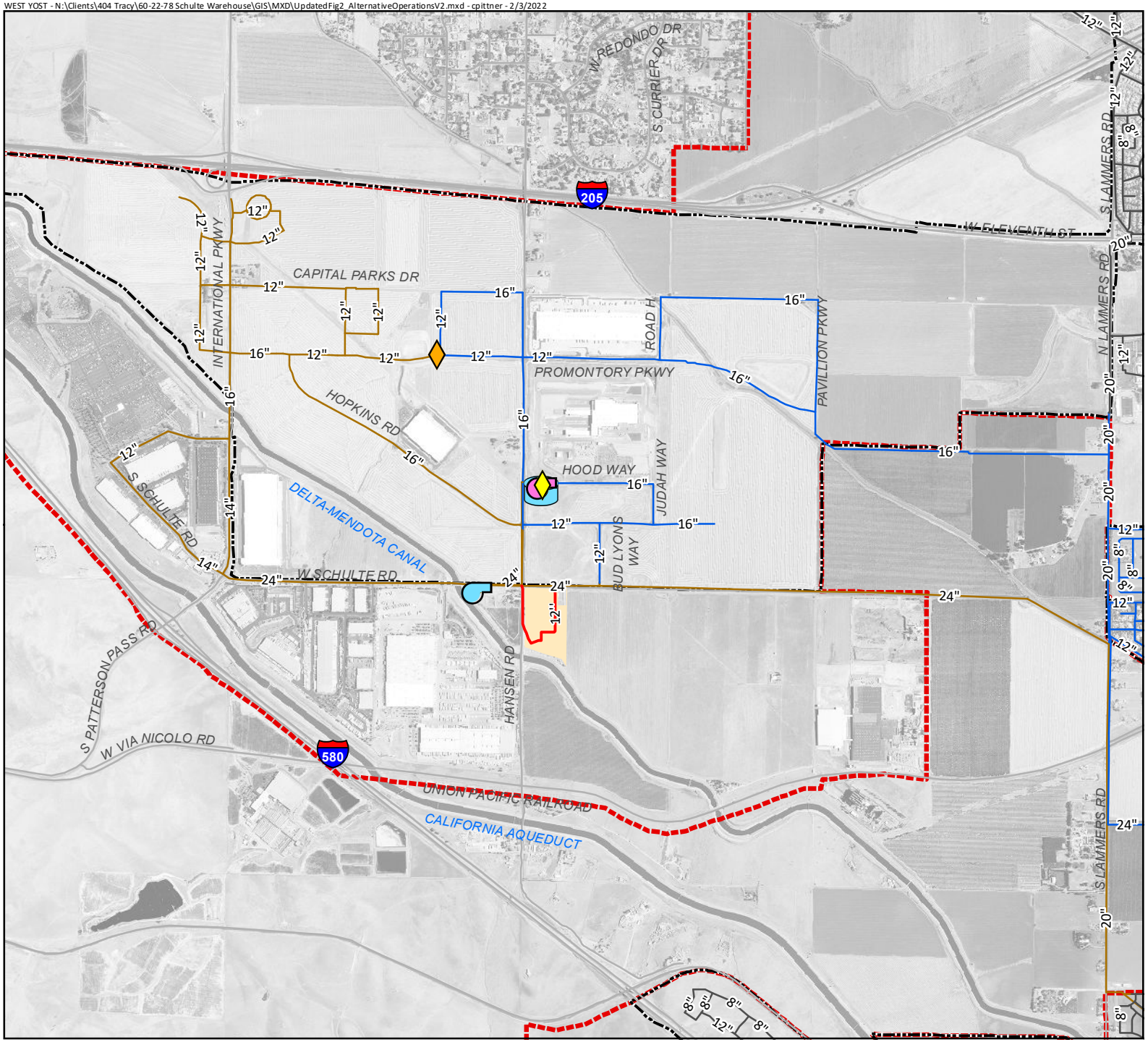
Figure 1

Existing Operations

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

WEST YOST - N:\Clients\404 Tracy\60-22-78 Schulte Warehouse\GIS\MXD\UpdatedFig2_AlternativeOperationsV2.mxd - cpittner - 2/3/2022



0 1,250 2,500

Scale in Feet

Pipeline Zone

- Zone 3 - Proposed
- Zone 2 - Existing
- Zone 3 - Existing
- Other - Existing
- Cordes Pressure Regulating Station
- Promontory Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit
- Sphere of Influence

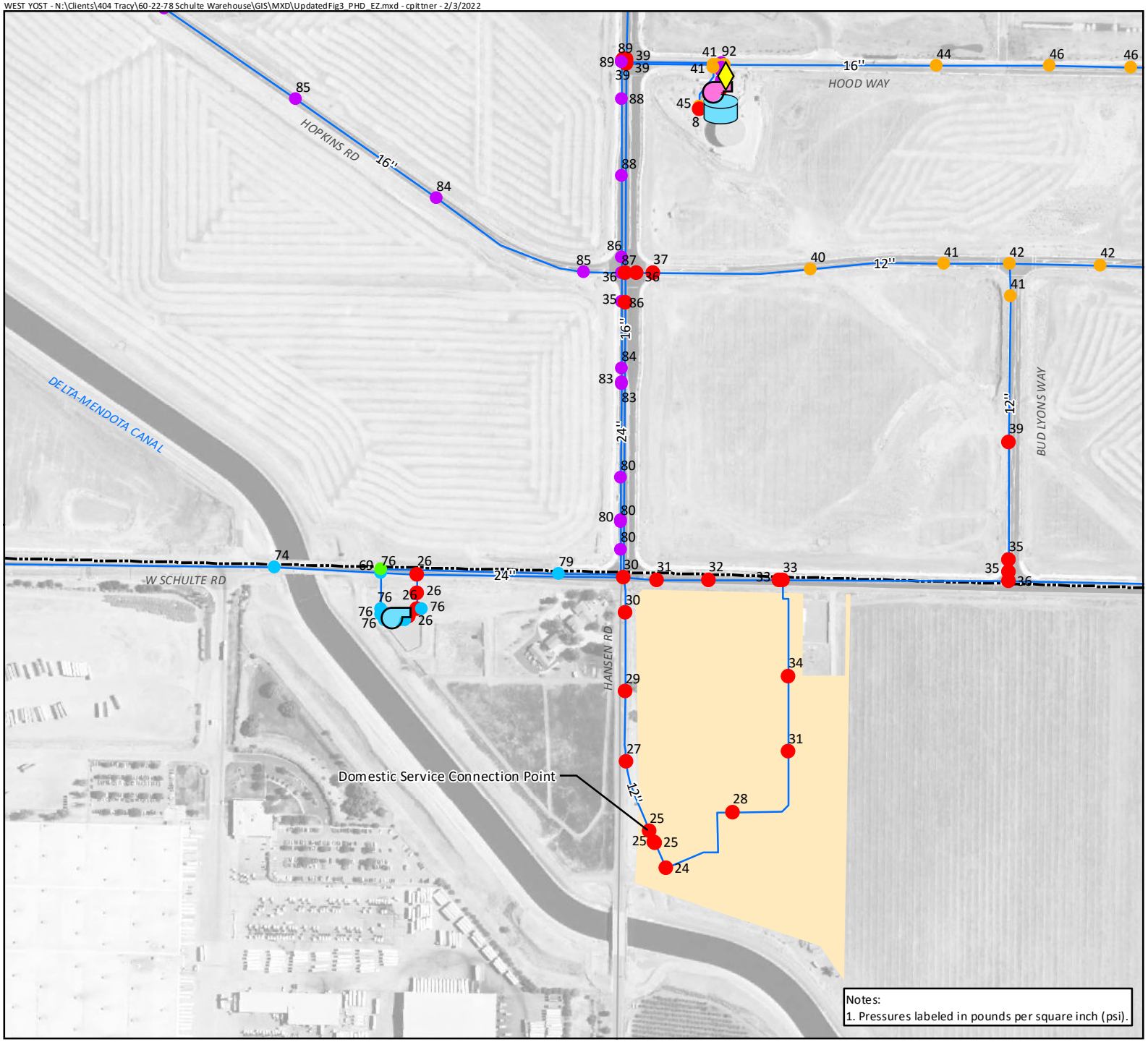
WEST YOST

Figure 2

Alternative Operations

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

WEST YOST - N:\Clients\404 Tracy\60-22-78 Schulte Warehouse\GIS\MXD\UpdatedFig3_PHD_EZ.mxd - cpittner - 2/3/2022



N

0 250 500

Scale in Feet

Peak Hour Pressure

- Less than 40 psi
- 40 to 50 psi
- 50 to 60 psi
- 60 to 70 psi
- 70 to 80 psi
- Greater than 80 psi

Pipeline Velocity

- Less than or Equal to 8 fps
- Greater than 8 fps
- Cordes Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit

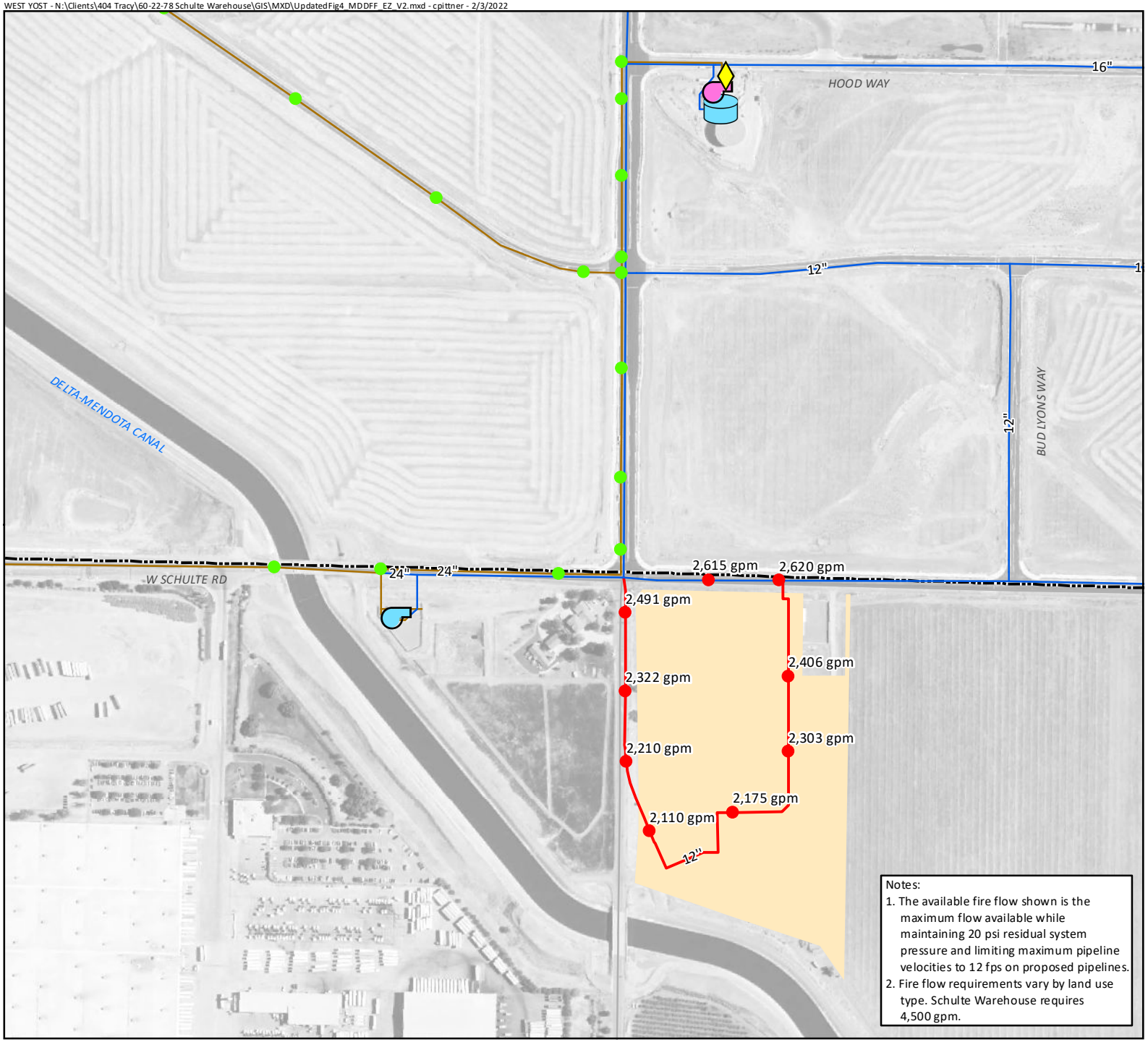
WEST YOST

Figure 3

Existing Operations Peak Hour Results

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

WEST YOST - N:\Clients\404 Tracy\60-22-78 Schulte Warehouse\GIS\MXD\UpdatedFig4_MDDFF_EZ_V2.mxd - cpittner - 2/3/2022



N

0 250 500

Scale in Feet

Available Fire Flow

- Does not Meet Requirements
- Meets Requirements

Pipeline Zone

- Zone 2 - Proposed
- Zone 2 - Existing
- Zone 3 - Existing
- Cordes Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit

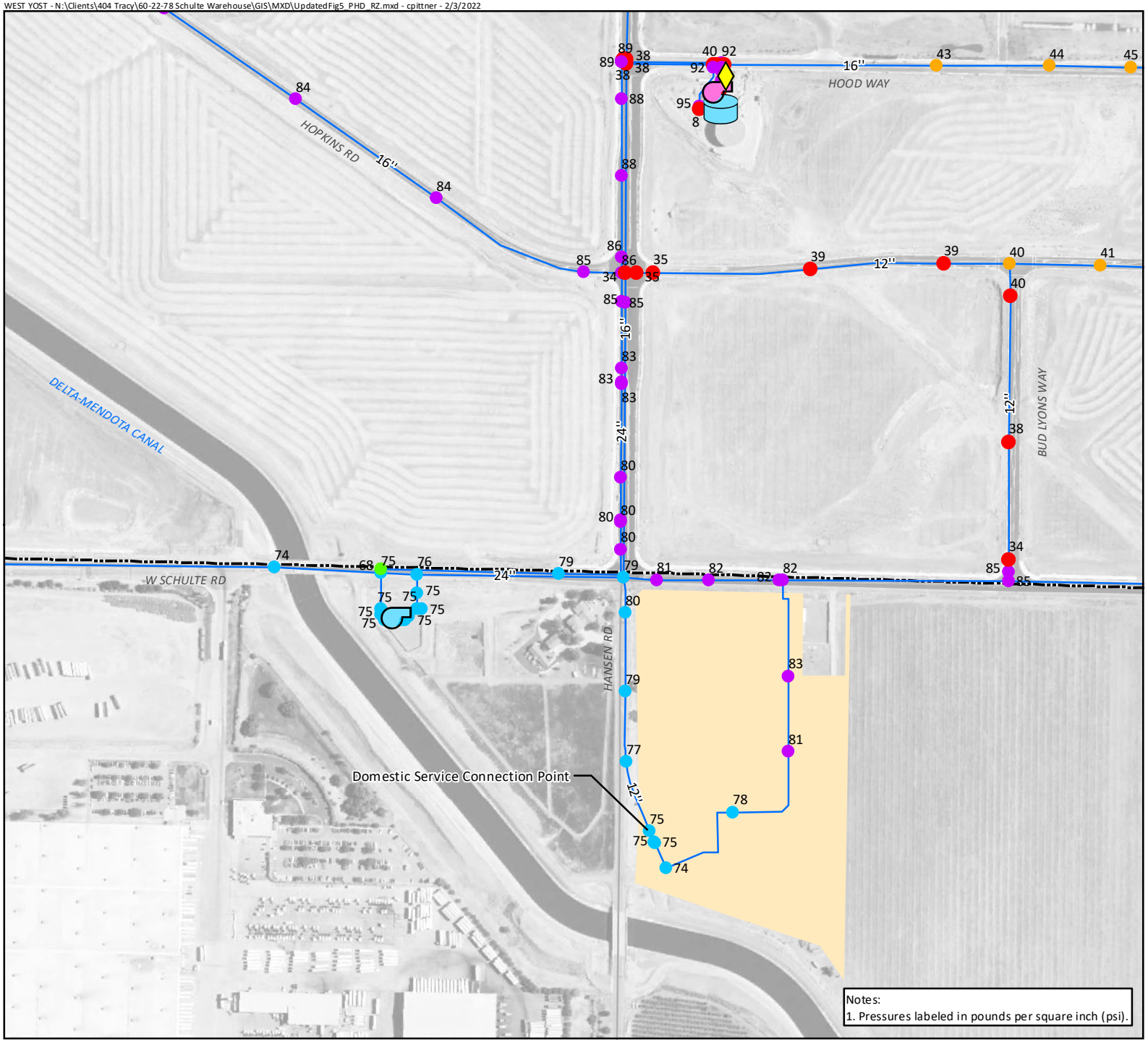
WEST YOST

Figure 4

Existing Operations Fire Flow Results

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

WEST YOST - N:\Clients\404 Tracy\60-22-78 Schulte Warehouse\GIS\MXD\UpdatedFig5_PHD_RZ.mxd - cpittner - 2/3/2022



N

0 250 500

Scale in Feet

Peak Hour Pressure

- Less than 40 psi
- 40 to 50 psi
- 50 to 60 psi
- 60 to 70 psi
- 70 to 80 psi
- Greater than 80 psi

Pipeline Velocity

- Less than or Equal to 8 fps
- Greater than 8 fps
- Cordes Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit

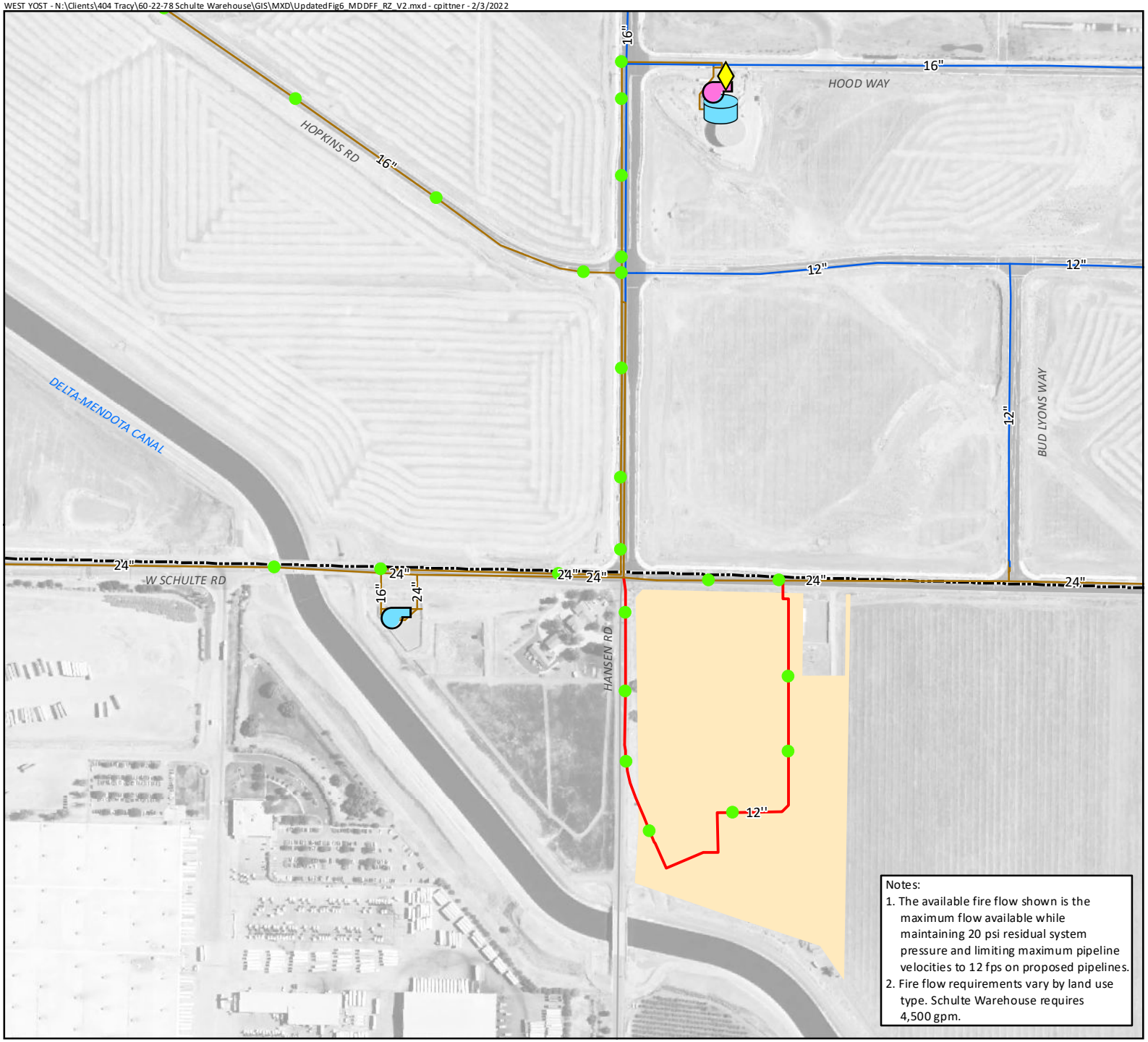
WEST YOST

Figure 5

Alternative Operations Peak Hour Results

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

WEST YOST - N:\Clients\404 Tracy\60-22-78 Schulte Warehouse\GIS\MXD\UpdatedFig6_MDDFF_RZ_V2.mxd - cpittner - 2/3/2022



N

0 250 500

Scale in Feet

Available Fire Flow

- Does not Meet Requirements
- Meets Requirements

Pipeline Zone

- Zone 3 - Proposed
- Zone 2 - Existing
- Zone 3 - Existing
- Cordes Pressure Regulating Station
- Cordes Booster Pump Station
- Patterson Pass Booster Pump Station
- Cordes Tank
- Schulte Warehouse
- City Limit

WEST YOST

Figure 6

Alternative Operations Fire Flow Results

City of Tracy
Schulte Warehouse
Hydraulic Evaluation

Attachment A

Planning and Modeling Criteria

Planning and modeling criteria used to evaluate the proposed Project are based on the system performance and operational criteria developed in the 2020 Citywide Water System Master Plan update (2020 WSMP). The criteria used to evaluate the existing water system and the proposed pipelines for the Project are listed as follows:

- Residual pressure at the flowing hydrant (during an assumed maximum day demand plus fire flow condition) and throughout the water system must be equal to or greater than 20 pounds per square inch (psi) during the simulated fire condition.
- Minimum allowable service pressure is 40 psi during all other non-fire demand conditions.
- Maximum allowable service pressure is 80 psi. A pressure reducing valve will be required on all water services with a static pressure greater than 80 psi and should conform with the requirements from the Uniform Plumbing Code.
- Maximum allowable distribution pipeline velocity is 12 feet per second (fps) during the simulated fire flow demand condition.
- Maximum allowable transmission and distribution pipeline velocity is 6 fps and 8 fps, respectively, during a non-fire demand condition.
- Maximum allowable head loss rate is 10 feet per 1,000 feet (ft/kft) during the simulated fire demand condition.
- Maximum head losses in distribution system pipelines should be limited to 7 ft/kft during a non-fire demand condition.
- New and required pipelines will be modeled with a roughness coefficient (C-factor) of 130.
- Available fire flow demand must meet a minimum flow of 1,500 gallons per minute (gpm), 2,500 gpm, 3,500 gpm, or 4,500 gpm depending on land use during a maximum day demand condition. These required fire flow demands assume that buildings are sprinklered.
- The 2020 WSMP hydraulic model of the City's existing water distribution system was used as the basis for evaluation.[1]

[1] This existing system hydraulic model was updated to include projected water demands from new and planned developments such as Valpico and MacDonald Apartments; Sierra Hills (Aspire I) Apartments; I 205 Parcels M1 and M2 and Infill Parcels 7 and 13; Grant Line Road Apartments; Rocking Horse; Aspire II Development; Ellis Specific Plan Phases 1, 2, and 3; Marriott TownePlace Suites; Larch Clover Interim Annexation; IPC Buildings 3, 4, and 12; IPC Building 25; IPC Buildings 22, 23, and Thermo Fisher; Tracy Village Specific Plan; Avenues Specific Plan; IPC Buildings 9, 10, and 14; NEI Specific Plan; Tracy Hills Phases 1A, 1B, and 1C; IPC Building 19A; Costco Depot; West Parkway Village; KT Project; IPC Prologis Sales Office Building; IPC Building 2; Tracy Alliance Project; IPC Building 16; IPC Building 8; Tracy Hills Phases 2-4; Tracy Hills Commerce Center; and Promontory Station. City staff also requested West Yost to incorporate the following developments, which were evaluated by Black Water Consulting Engineers, Inc., into the City's hydraulic model: Barcelona Infill; Berg Road Properties; Harvest Apartments; 321 E. Grant Line Apartments; Home 2 Suites; IPT Pescadero Buildings 2 and 3; IPT Pescadero Building 4; Byron Apartments; Assisted Living and Memory Care; La Quinta Inn & Suites; Seefried Industrial Campus; and California Highway Patrol.

APPENDIX I

Sewer Collection System Hydraulic Capacity Analysis

Technical Memorandum

BLACKWATER CONSULTING ENGINEERS

(SENT VIA: EMAIL)

To: Robert Armijo, P.E., City of Tracy
Nanda Gottiparthy, SNG & Associates, Inc.

From: Aja Verburg, P.E., Black Water Consulting Engineers, Inc.
Bao Cha, E.I.T., Black Water Consulting Engineers, Inc.

Subject: FINAL Schulte Warehouse Project
Sewer Collection System Hydraulic Capacity Analysis

Date: October 12, 2022

EXECUTIVE SUMMARY

The purpose of this Technical Memorandum (TM) is to provide an evaluation of the existing City of Tracy (City) sewer system to serve the Schulte Warehouse Project (Project). Design criteria from the City's 2012 Wastewater Master Plan (2012 WWMP) was used to determine the sewer flows from the Project based on the proposed land use. Two options were evaluated to determine the capacity of the existing sewer system based on the Project point of connection as discussed in Section 1.

- The first option (Option 1) is to evaluate the Project utilizing the Hansen Road Sewer System per the point of connection shown on the preliminary utility plan.

- The second option (Option 2) is to evaluate the Project utilizing the existing gravity sewer pipeline in Lammers Road, consistent with the 2012 WWMP.

A summary of the recommendation for each option is as follows:

- For Option 1, the existing Hansen Road Sewer System and the Hansen Pump Station have the capacity to serve the Project. No off-site improvements are required to serve the Project. This option is not consistent with the 2012 WWMP recommendation. If the Project plans to utilize the Hansen Road Sewer System, a condition assessment is recommended to determine any deficiencies due to the age of the Hansen Road Sewer System.

- For Option 2, the existing 8-inch sewer pipeline in Schulte Road does not have sufficient capacity to accommodate the Project. If the Project plans to utilize the proposed Lammers Sewer System, the Project will need to replace approximately 11,000 linear feet of the existing 8-inch sewer pipeline in Schulte Road with a new 10-inch sewer pipeline.

INTRODUCTION

This TM has been prepared by Black Water Consulting Engineers, Inc. (Black Water) to present the findings of the sewer collection system hydraulic capacity analysis for the Project. This TM evaluates the capacity of the existing and proposed sewer collection system to serve the Project and identifies impacts to the sewer system and required improvements.

Section 1 provides a general description of the Project, design criteria, and assumptions. Section 2 includes the analyses methodology and analyses results. Section 3 includes identified system deficiencies and recommended improvements.

Engineering reports and documents reviewed and referenced in this TM include the following:

[1] City of Tracy General Plan, Design, Community & Environment, February 2011. (2011 General Plan)
[2] City of Tracy Wastewater Master Plan, prepared by CH2M Hill, December 2012. (2012 WWMP)
[3] Hansen Road Sanitary Collection System City of Tracy, prepared by Bissell & Karn Inc., February 1994.
[4] Patterson Pass Business Center Sanitary Sewer and Water Systems Phase II, prepared by Bissell & Karn, October 11, 1991.
[5] Capacity Analysis of the Hansen Sewer Collection System for Tracy Gateway, prepared by Ruark and Associates, December 2006.
[6] City of Tracy Engineering Design & Construction Standards, February 18, 2020.
[7] Wastewater Technology Fact Sheet Sewers, Force Main, prepared by US EPA, September 2000.
[8] New Warehouse Building 16286 W Schulte Rd, Tracy, CA 95377, Development Review & Rezoning Plan Set, prepared by VITAE Architecture Planning Interiors, June 23, 2021.
[9] New Warehouse Building 16286 W Schulte Rd, Tracy, CA 95377, Development Review & Rezoning (Alternative) Plan Set, prepared by VITAE Architecture Planning Interiors, October 7, 2021.
[10] W Schulte Road Warehouse Project Description, August 16, 2021.
[11] Schulte Road Warehouse Annexation (AP21-0001, GPA21-0002, D21-0020) Development Application Review Technical Memorandum, prepared by San Joaquin County Development Application Review, September 1, 2021.
[12] City of Tracy San Joaquin County, California, Larch Road Reconstruction Hansen Road WW Collection System Upgrade C.I.P. Nos. 73125, 74097, 74106, & 74113, prepared by the City of Tracy, August 18, 2015. (Larch Road Reconstruction Plans)

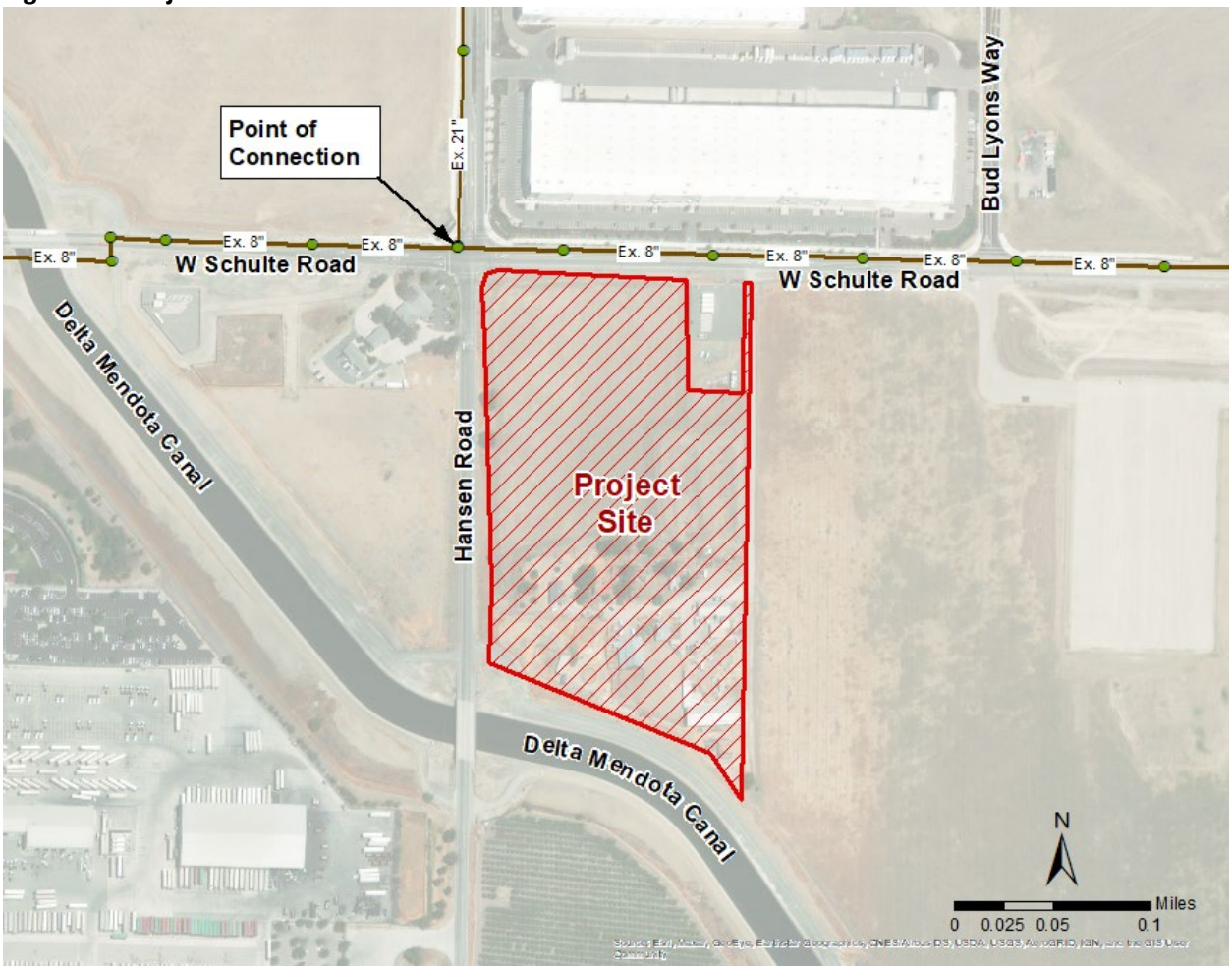
SECTION 1 – GENERAL DESCRIPTION

Project Description

The Project is located in Tracy, California, south of W Schulte Road, west of Hansen Road, and north of the Delta Mendota Canal. Refer to **Figure 1** for the Project site location. The preliminary utility plan for Schulte Warehouse is included in **Appendix A**. The Project site area totals approximately 20.92 acres and is comprised of a one-story warehouse. The 2011 General Plan land use designation for the Project is industrial, consistent with the proposed Project land use.

The Project proposes one connection to the existing sewer pipeline at the intersection of Schulte Road and Hansen Road. The proposed point of connection to the existing system is at an existing manhole in Schulte Road that conveys flows north via a 21-inch diameter sewer pipeline to the Hansen Sewer System and east via an existing 8-inch diameter sewer pipeline.

Figure 1 – Project Location



Per the 2012 WWMP, the Hansen Road Sewer System capacity has been fully allocated to other projects; therefore, no long-term conveyance capacity is available. The 2012 WWMP recommends installing the Lammers Sewer System to serve the West Catchment Future Service Area, shown in Figure 5-1 of the 2012 WWMP included in **Appendix B**. The West Catchment Future Service Areas includes Tracy Hills, South Linne, UR10 (Ellis), UR9 (Keenan), Kagehiro, Westside Industrial, Cordes Ranch, Gateway (excluding Phase 1), UR5 (Bright), UR8 (Fahmy), Berg/Byron, Catellus, Filios, I-205 Expansion, and Larch Clover.

A majority of the sewer will flow north into the existing 21-inch sewer pipeline in Hansen Road and the rest will flow into the existing 8-inch sewer pipeline in Schulte Road based on the existing pipeline invert elevations at the proposed connection. If the Project plans to utilize the existing 8-inch sewer pipeline in

Lammers Road, consistent with the 2012 WWMP, the Project will need to connect to the existing sewer pipeline in Schulte Road east of Hansen Road.

Existing Peak Flows

Existing peak flows contributing to the collection system and used in the hydraulic model evaluation are based on data collected in July 2020 from the City's flow monitoring program. **Table 1** summarizes the measured average dry weather flows (ADWFs) and the peak flows in the existing sewer collection system serving the Project. **Figure 2** shows the temporary flow monitoring locations along the Hansen Road Sewer System.

Table 1 - Flow Monitoring Data along Hansen Road Sewer System

Site ID	Location	Pipeline Diameter (inch)	Measured ADWF[1] (mgd)	Measured Peak Flow[1] (mgd)
TC-06	Located near West Valley Mall north of Auto Plaza Dr	31	1.32	1.78
TC-07	Located at the intersection of Byron Rd & Von Sosten Rd	21	0.28	1.17

[1]City of Tracy Sewer Flow Monitoring Study, prepared by V&A Consulting Engineers, July 2020

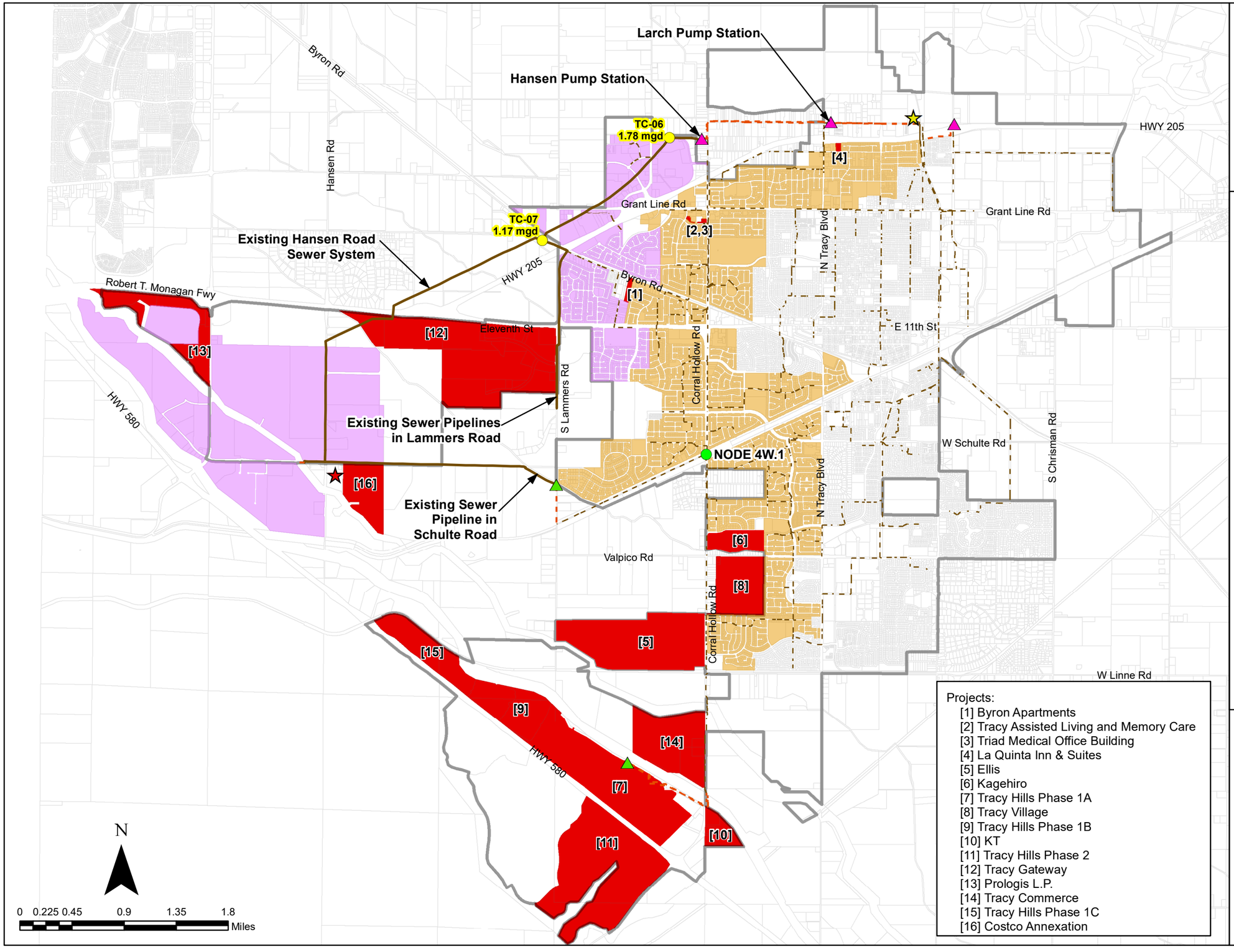
This analysis includes existing peak wet weather flow (PWWF) based on the sewer flow monitoring study data. This analysis also includes calculated PWWF from the projects listed in **Table 2**. Refer to **Figure 2** for the locations of the listed developments. Per the City's policy, evaluation of the existing sewer infrastructure to serve projects and allocation of capacity is based on the approval date of the project. Once a project is approved, the capacity is allocated to that project. Approved projects included in this sewer capacity analysis and the order capacity are allocated based on approved tentative map dates provided by the City. For the purposes of CEQA/engineering evaluation, the order of the analysis defaults to the City's planning application submission date.

Table 2 – Analysis PWWFs

Parameter	PWWF (mgd)	Node 4W.1 PWWF (mgd)	Approved Tentative Map Date
Corral Hollow Sewer System			
Existing Flows			
TC-05	1.114	-	
TC-15	0.672	-	
TC-10	1.436	-	
TC-11	0.594	0.594	
Projects			
Byron Apartments	0.021	-	
Tracy Assisted Living and Memory Care	0.074	-	
Triad Medical Office Building	0.001	-	
Ellis	0.896	0.896	
Kagehiro	0.118	0.118	
Tracy Hills Phase 1A	0.942	0.942	
Other Building Permits	0.155	-	
Tracy Village	0.364	0.364	May 15, 2018
Tracy Hills Phase 1B	0.410	0.410	November 10, 2020
KT	0.166	0.166	November 10, 2020
Tracy Hills Phase 2	1.090	1.090	October 19, 2021
Tracy Commerce	0.509	0.509	
Tracy Hills Phase 1C	0.220	0.220	
Subtotal	8.782	5.308	
Hansen Road and Lammers Sewer Systems			
Existing Flows			
TC-06	0.609	-	
TC-07	1.168	-	
Projects			
Byron Apartments	0.021	-	
Tracy Gateway (Phase 1)[a]	0.780	-	
Prologis[b]	0.495	-	
Costco Annexation	0.378	-	
Subtotal	3.451	0.000	
Tracy Boulevard Sewer Pipeline			
Existing Flows			
TC-04	1.029	-	
Projects			
La Quinta Inn & Suites	0.007	-	
Subtotal	1.036	0.000	
Total	13.268	5.308	

[a]Per the capacity analysis of the Hansen Road Sewer System report prepared by Ruark and Associates in December 2016, a peak flow of 0.78 mgd is set aside for the Tracy Gateway (Phase 1) development [5].

[b]The Agreement between the City and the Prologis L.P. has permitted Prologis to use the Hansen Road Sewer System and the Hansen Pump Station to accommodate up to 0.145 mgd based on the ADWF. Based on the ADWF, a peak flow of 0.495 mgd was estimated for the Prologis L.P. development project.



Projects:
- [1] Byron Apartments
- [2] Tracy Assisted Living and Memory Care
- [3] Triad Medical Office Building
- [4] La Quinta Inn & Suites
- [5] Ellis
- [6] Kagehiro
- [7] Tracy Hills Phase 1A
- [8] Tracy Village
- [9] Tracy Hills Phase 1B
- [10] KT
- [11] Tracy Hills Phase 2
- [12] Tracy Gateway
- [13] Prologis L.P.
- [14] Tracy Commerce
- [15] Tracy Hills Phase 1C
- [16] Costco Annexation

TRACY

LEGEND

- Tracy City Limits
- Wastewater Treatment Plant
- City's Pump Station
- Private Pump Station
- Gravity Sewer Pipeline Serving Schulte Warehouse Project
- Existing Sewer Force Main
- Existing Sewer Pipeline
- Existing Contributing Area of Sewer Flow to Corral Hollow Sewer System
- Existing Contributing Area of Sewer Flow to Hansen Sewer System
- Proposed Sewer going into the Larch Pump Station
- 2012 WWMP Node #
- Flow Meter
- TC-# Flow Meter ID
- mgd Estimated PWWF, mgd
- Schulte Warehouse (Project)

Figure 2

SEWER CAPACITY ANALYSIS

Projects included in Analysis

BLACKWATER CONSULTING ENGINEERS

Estimated Project Sewer Flows

The ADWF for the Project was calculated based on the wastewater generation factors adopted in the 2012 WWMP. The total ADWF for the Project is approximately 22,092 gpd based on a wastewater generation factor of 1,056 gpd/gross acre for the industrial land use designation. **Table 3** presents the estimated Project ADWF.

Table 3 - Estimated Project ADWF

Land Use Designation	Assessor Parcel Number	Gross Acreage, Acres	Generation Factor, gpd/gross acre	ADWF, gpd
Industrial	209-230-250	20.92	1,056	22,092

PWWF includes the peak dry weather flow (PDWF) and the rainfall induced inflow/infiltration. The total estimated PWWF is 75,968 gpd. **Table 4** provides the values for parameters used to estimate the PWWF.

Table 4 - Estimated Project PWWF

Parameter	Value
Peaking Factor	3.00
Gross Acreage, acres	20.9
PDWF[1], gpd	66,275
Infiltration[2], gpd	1,325
Inflow[3], gpd	8,368
PWWF[4], gpd	75,968

[1]PDWF is equal to ADWF multiply by the Peaking Factor
[2]Infiltration is equal to six (6) percent of the ADWF
[3]Inflow is equal to the gross acreage multiply by 400 gal/ac-day
[4]PWWF is equal to the summation of the PDWF, infiltration, and inflow

Design Criteria

Sewer system performance design criteria and analysis requirements for new development are summarized in **Table 5**.

Table 5 - Design Criteria and Requirements [6]

Component	Criteria
Friction Factor "n"	0.013
Sewer Pipeline	
Maximum Velocity	10.0 fps
Maximum Surcharge d/D Ratio[1]	1.0
Minimum Diameter	8-inch
Available Slope	Obtain the minimum velocity of 2 fps
Material	Vitrified Clay Pipe (VCP) and Ductile Iron Pipe (DIP)
Service Lateral Sizing	
Single-Family Residences	4-inch
Commercial	6-inch
Duplex and Multi-Family Lots	6-inch
Minimum Slope	2%
Sewer Manhole Maximum Spacing	
Diameter 12-inch and under	400 feet
Diameter 15-inch and over	600 feet
Existing Force Main[2]	
Minimum Velocity	2 fps
Maximum Velocity	8 fps

[1]The maximum surcharge d/D ratio in InfoSWMM is based on the upstream and downstream node depths.
[2]Force mains from lift station are typically designed for velocities between 2 to 8 fps [7].

SECTION 2 – HYDRAULIC CAPACITY ANALYSIS EVALUATION AND RESULTS

The sewer system serving the proposed Project was modeled using GIS integrated Innovyze InfoSWMM software. Although most of the collection system within the City is included in the GIS database, the modeling focused on the major trunk sewers within the system serving the Project. The software uses St. Venant Equations to determine the pipe flow in a gravity main.

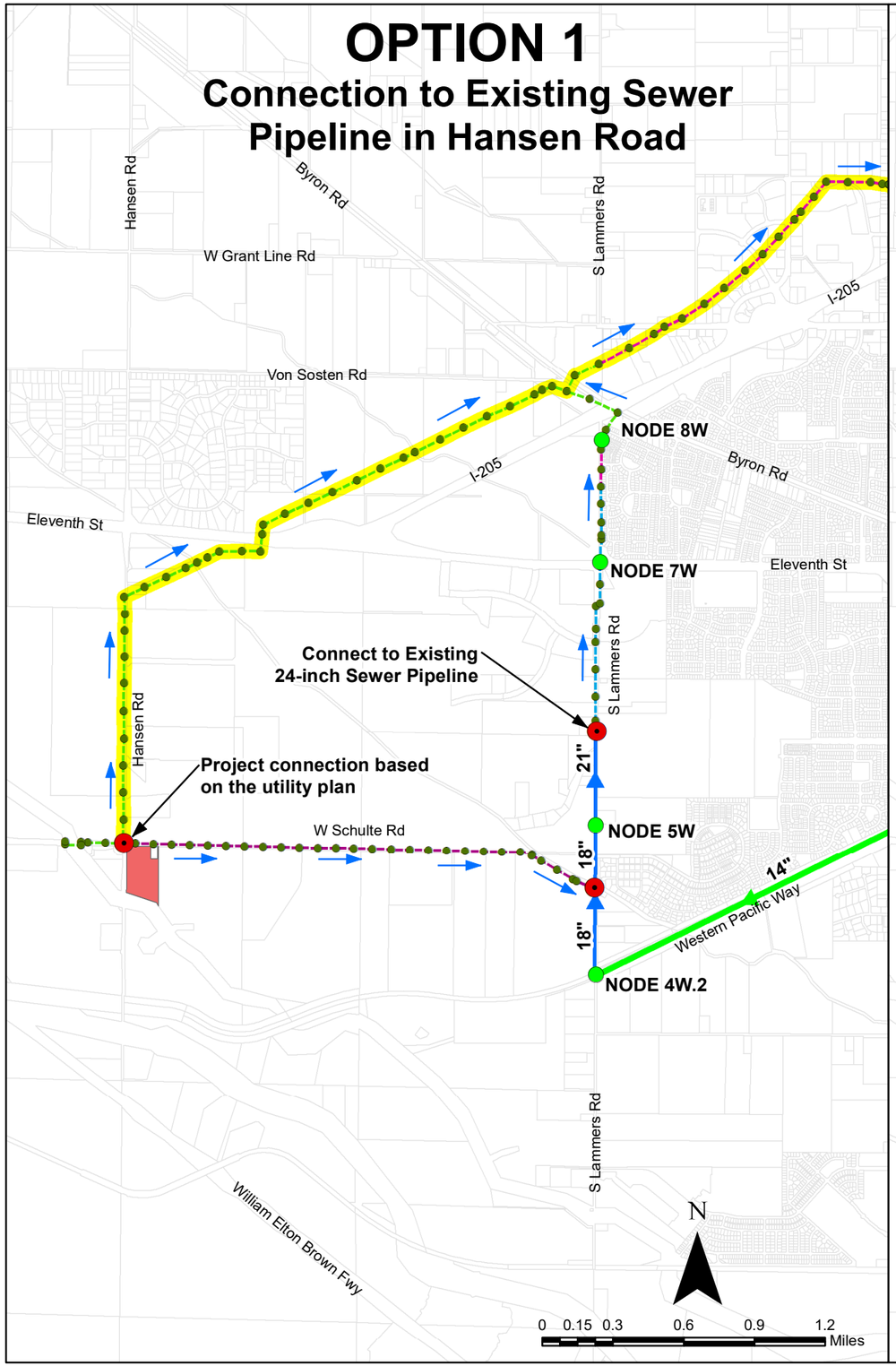
The modeling software uses the upstream and downstream invert elevation, pipe diameter, and sewer flow data to calculate slope, d/D, and the velocity in the pipes. The software also uses rim elevation, invert elevation, manhole diameter, and sewer flow data to calculate the liquid level in a manhole.

Two options were evaluated to determine the capacity of the existing sewer system based on the Project point of connection.

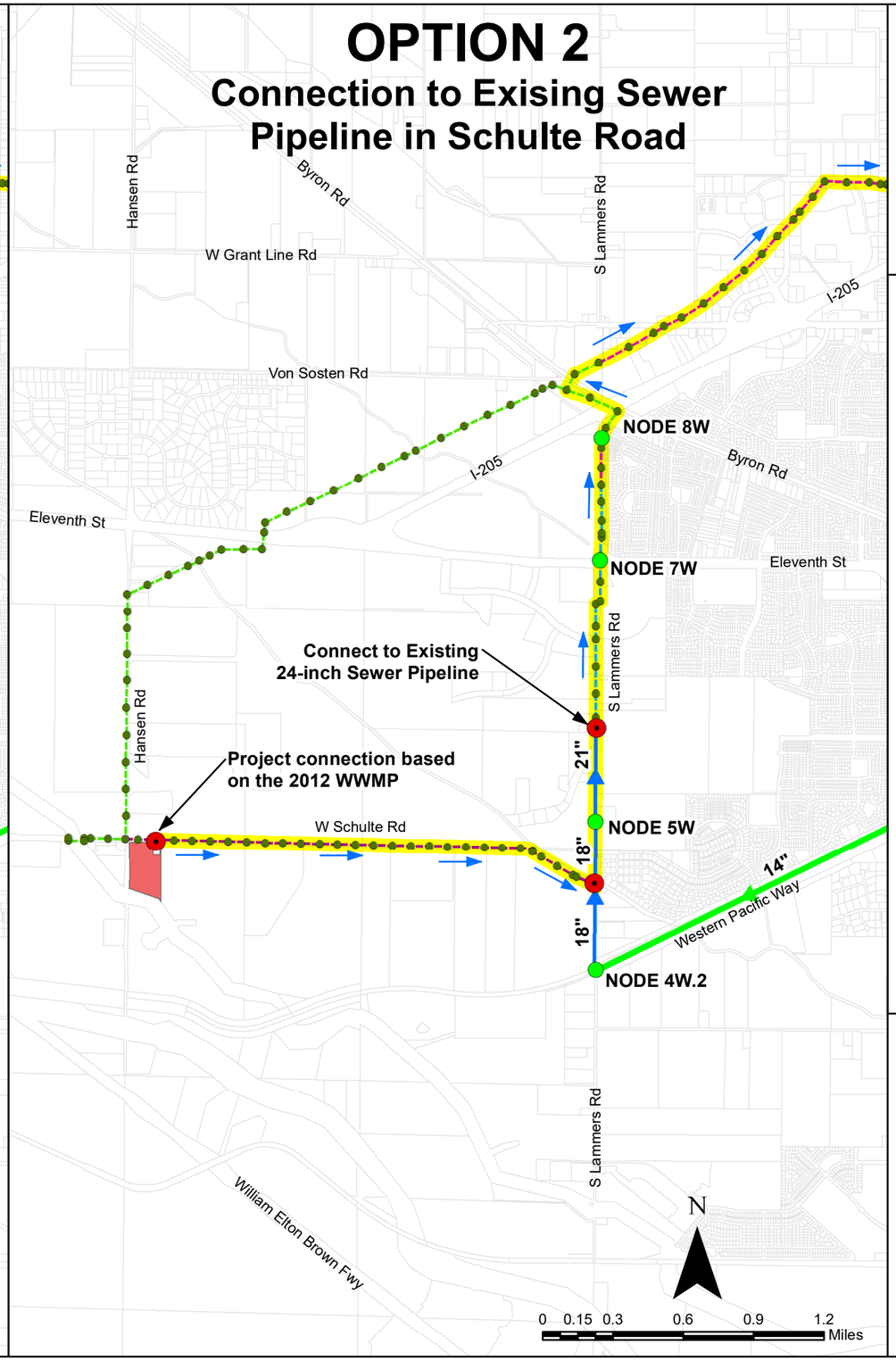
1. Option 1 is to evaluate the Project utilizing the Hansen Road Sewer System per the point of connection shown on the preliminary utility plan.
2. Option 2 is to evaluate the Project utilizing the existing gravity sewer pipeline in Lammers Road, consistent with the 2012 WWMP.

Refer to **Figure 3** for a comparison of the sewer conveyance system utilized based on the point of connection.

OPTION 1
Connection to Existing Sewer Pipeline in Hansen Road



OPTION 2
Connection to Exising Sewer Pipeline in Schulte Road



TRACY

LEGEND

- Sewer Manhole
- Existing 8 - inch Sewer Pipeline
- Existing 24 - inch Sewer Pipeline
- Existing 21 - inch Sewer Pipeline
- Existing 30 - inch Sewer Pipeline
- Schulte Warehouse (Project)
- 2012 WWMP Node #
- Point of Connection
- Proposed Sewer Pipeline
- Proposed Force Main
- Project Flow Route
- Direction of Flow
- 18" Pipe Diameter

Figure 3

SEWER CAPACITY ANALYSIS RESULTS

Point of Connection Comparison

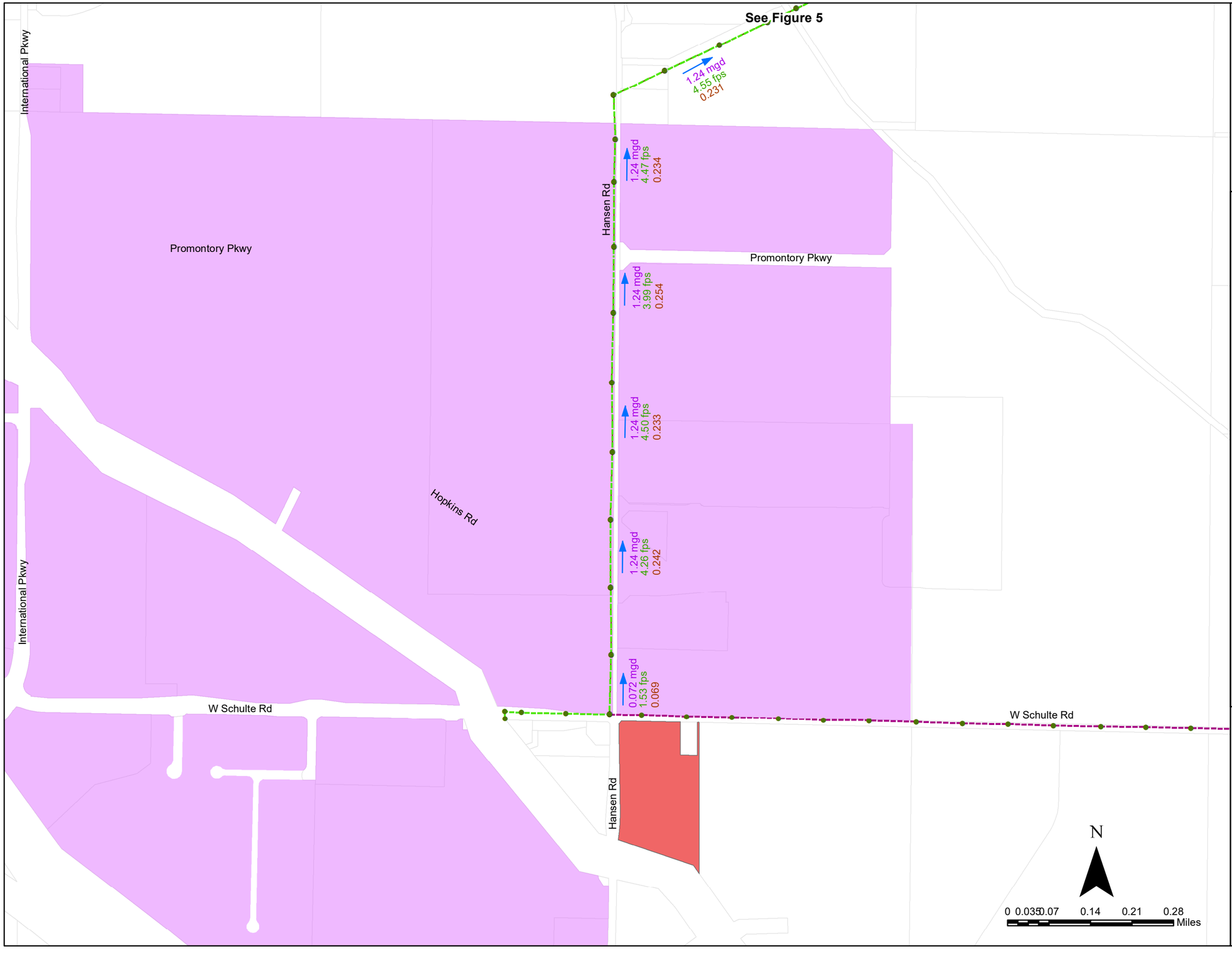
BLACKWATER CONSULTING ENGINEERS

Modeling Results for Option 1

For Option 1, the Project will utilize the existing Hansen Road Sewer System. A majority of the sewer from the Project will flow north into an existing 21-inch sewer pipeline in Hansen Road. The rest will flow east into an existing 8-inch sewer pipeline in Schulte Road and then into the existing sewer pipeline in Lammers Road. All sewer from the project will flow into the Hansen Pump Station prior to the wastewater treatment plant (WWTP).

Existing Hansen Road Sewer System Analysis

The model results indicate that the existing sewer pipelines in the Hansen Road Sewer System have capacity to serve the Project. It should be noted that City staff has indicated that the existing Hansen Road Sewer System, near the intersection of Von Sosten Road and Byron Road, has constant maintenance issues with buildup of grease and trash. **Figures 4, 5, 6** present the hydraulic capacity analysis results of the Hansen Road Sewer System. **Appendix C** includes the model output data for the modeling analysis of the Hansen Road Sewer System.



TRACY

LEGEND

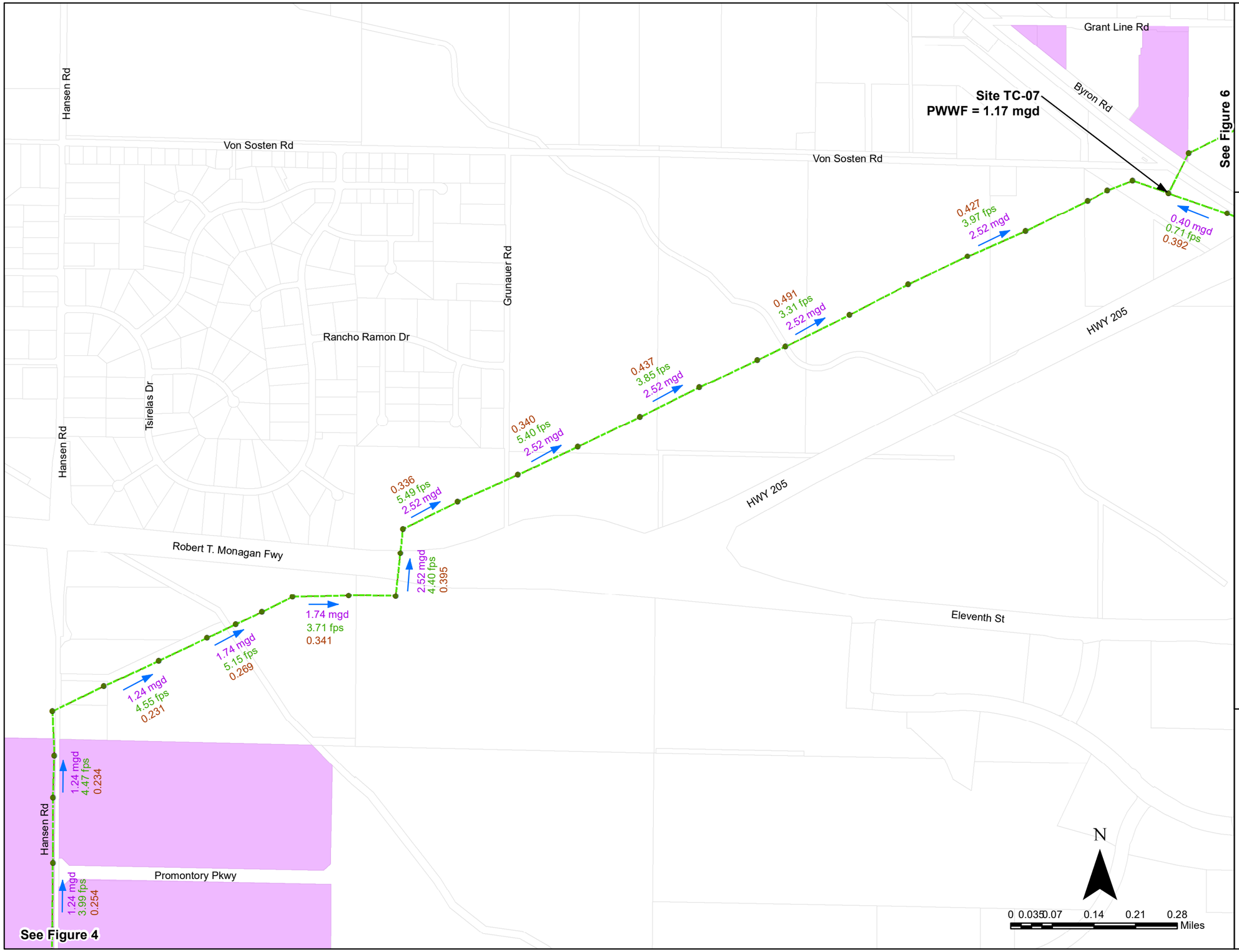
- Sewer Manhole
- 8 - inch Sewer Pipeline
- 21 - inch Sewer Pipeline
- Existing Sewer Force Main
- Existing Sewer Pipeline
- Existing Contributing Area of Sewer Flow to Hansen Road Sewer System
- Schulte Warehouse (Project)
- Direction of Flow
- # mgd Total Peak Flow
- # fps Velocity
- # d/D Ratio

Figure 4

SEWER CAPACITY ANALYSIS RESULTS

OPTION 1
Existing Hansen Road Sewer System

BLACKWATER CONSULTING ENGINEERS



TRACY

LEGEND

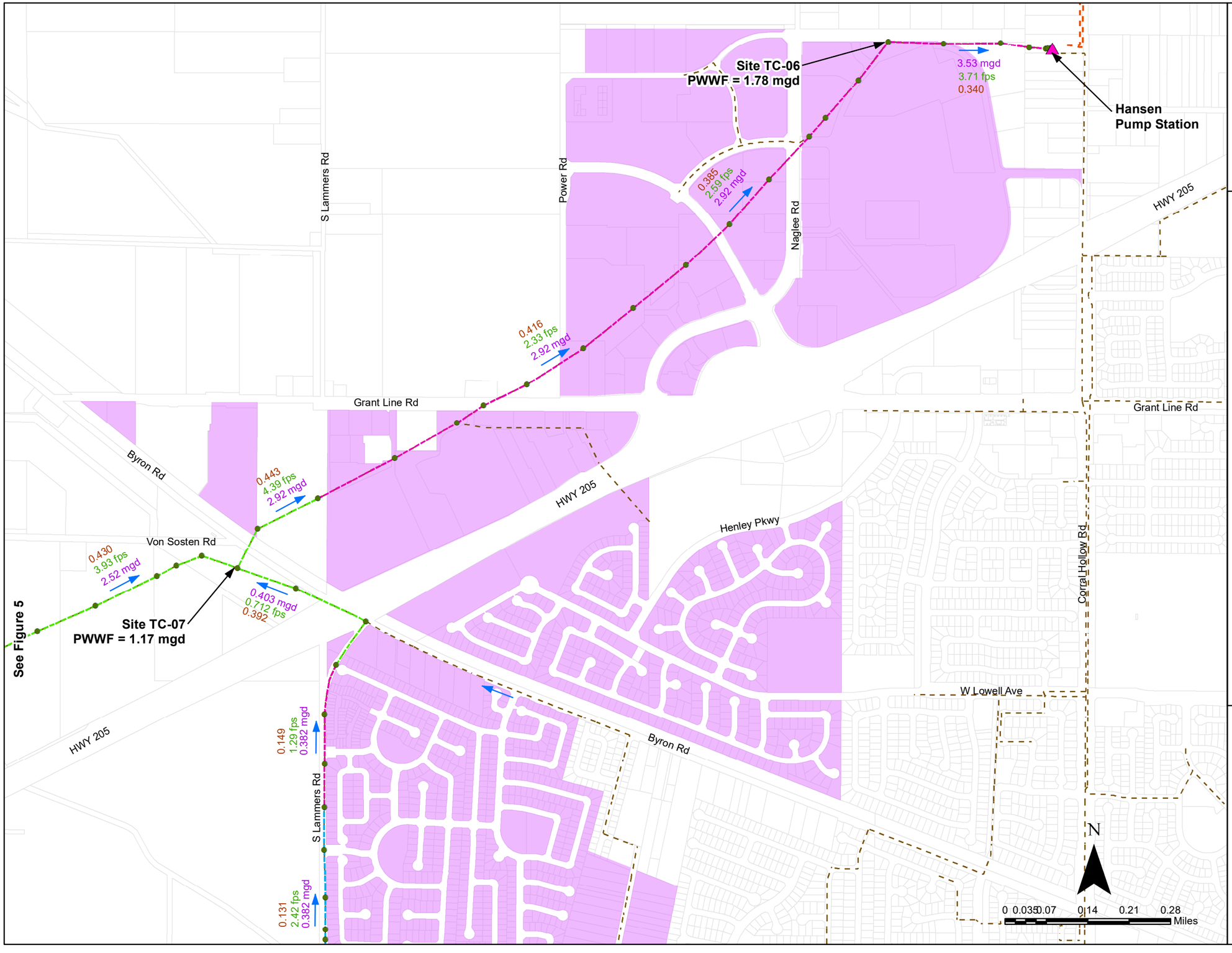
- Sewer Manhole
- 21 - inch Sewer Pipeline
- Existing Sewer Force Main
- Existing Sewer Pipeline
- Existing Contributing Area of Sewer Flow to Hansen Road Sewer System
- Direction of Flow
- # mgd Total Peak Flow
- # fps Velocity
- # d/D Ratio

Figure 5

SEWER CAPACITY ANALYSIS RESULTS

OPTION 1
Existing Hansen Road Sewer System

BLACKWATER CONSULTING ENGINEERS



TRACY

LEGEND

- Pump Station
- Sewer Manhole
- 21 - inch Sewer Pipeline
- 24 - inch Sewer Pipeline
- 30 - inch Sewer Pipeline
- Existing Sewer Force Main
- Existing Sewer Pipeline
- Existing Contributing Area of Sewer Flow to Hansen Road Sewer System
- Direction of Flow
- # mgd Total Peak Flow
- # fps Velocity
- # d/D Ratio

Figure 6

SEWER CAPACITY ANALYSIS RESULTS

OPTION 1
Existing Hansen Road Sewer System

BLACKWATER CONSULTING ENGINEERS

Modeling Results for Option 2

For Option 2, sewer from the Project will flow into the existing sewer pipeline in Schulte Road and then into the existing sewer pipeline in Lammers Road. The existing sewer pipeline in Lammers Road is currently connected to the Hansen Road Sewer System. Sewer from the Hansen Road Sewer System flows into the Hansen Pump Station prior to the WWTP.

Existing Sewer Pipelines in Schulte Road Analysis

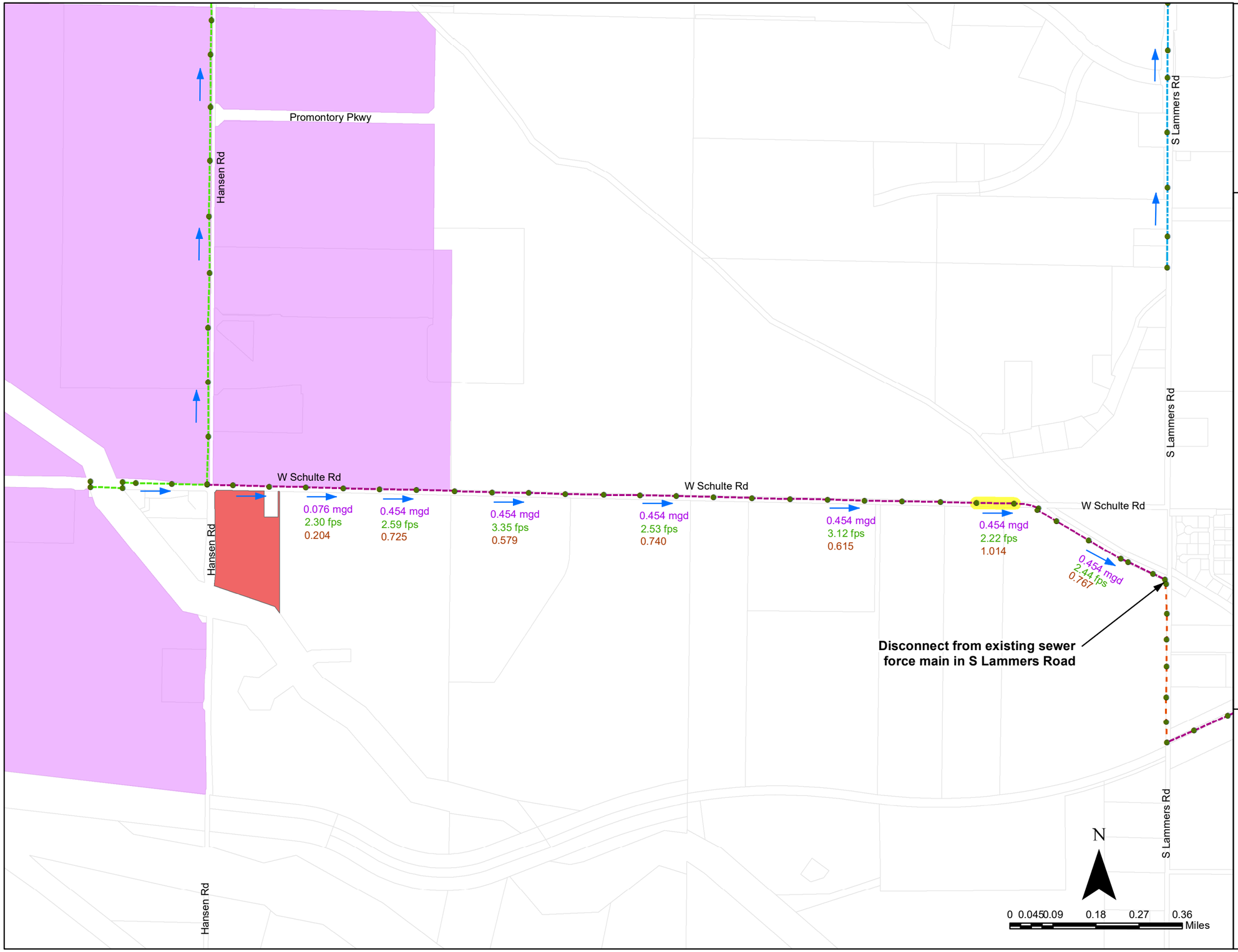
The model results indicate that the existing sewer pipeline in Schulte Road does not have capacity to serve the Project. **Figure 7** presents the hydraulic capacity analysis results of the existing sewer pipeline in Schulte Road to serve the Project. **Appendix C** includes the model output data for the modeling analysis of the existing pipelines in Schulte Road.

Existing Sewer Pipelines in Lammers Road Analysis

The model results indicate that the existing sewer pipelines in Lammers Road from Node 5W to Node 8W have capacity to serve the Project. **Figure 8** presents the hydraulic capacity analysis results of the existing sewer pipeline in Lammers Road to serve the Project. **Appendix C** includes the model output data for the modeling analysis of the existing pipelines in Lammers Road.

Existing Hansen Road Sewer System Analysis

The model results indicate that the existing sewer pipelines in the Hansen Road Sewer System have capacity to serve the Project. It should be noted that City staff has indicated that the existing Hansen Road Sewer System, near the intersection of Von Sosten Road and Byron Road, has constant maintenance issues with buildup of grease and trash. **Figure 9** presents the hydraulic capacity analysis results of the Hansen Road Sewer System. **Appendix C** includes the model output data for the modeling analysis of the Hansen Road Sewer System.



TRACY

LEGEND

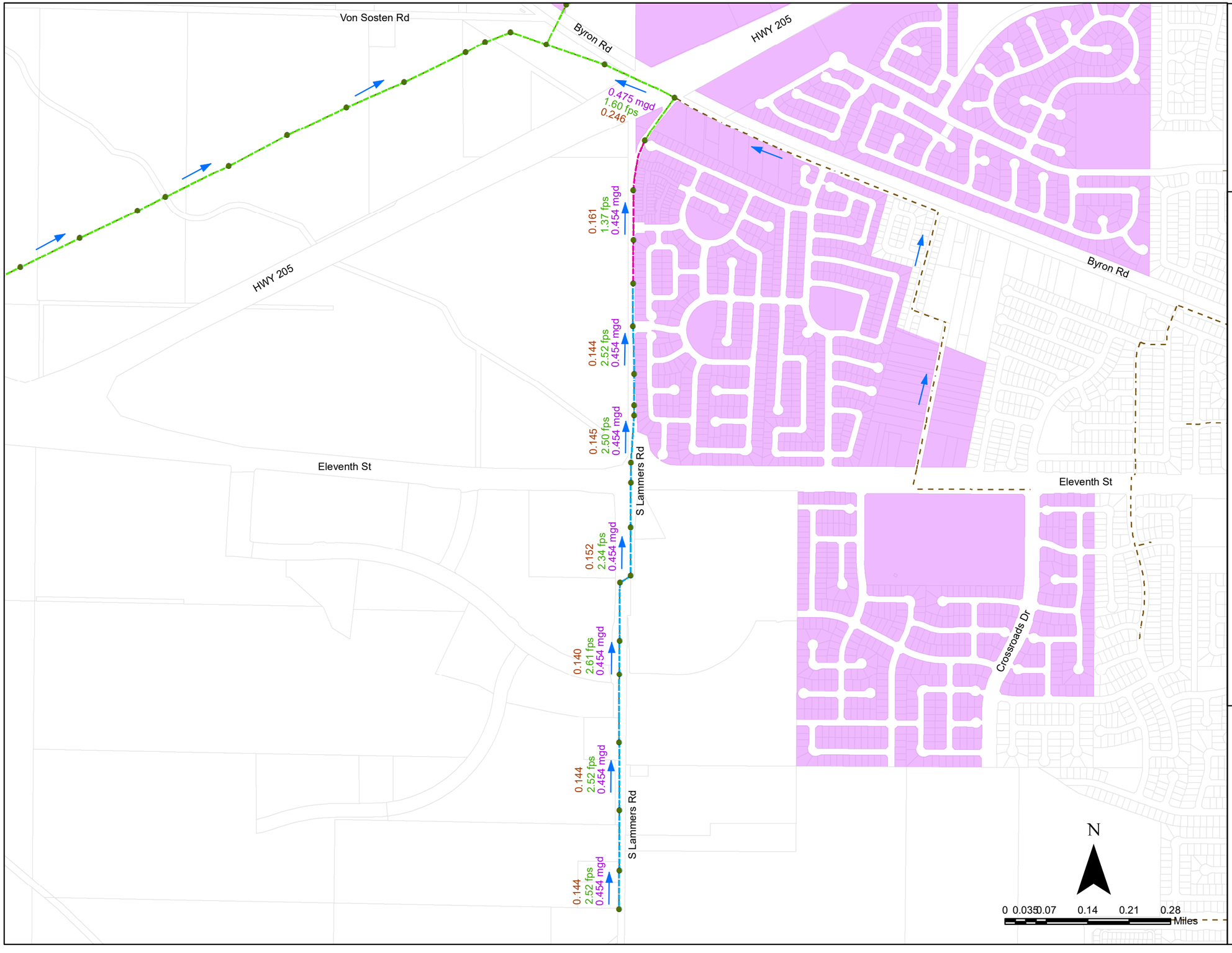
- Sewer Manhole
- 8 - inch Sewer Pipeline
- 24 - inch Sewer Pipeline
- 21 - inch Sewer Pipeline
- Existing Sewer Force Main
- Schulte Warehouse (Project)
- Existing Contributing Area of Sewer Flow to Hansen Road Sewer System
- Surcharge d/D > 1.0
- Direction of Flow
- # mgd Total Peak Flow
- # fps Velocity
- # d/D Ratio

Figure 7

SEWER CAPACITY ANALYSIS RESULTS

OPTION 2
Existing Sewer Pipelines in Schulte Road

BLACKWATER CONSULTING ENGINEERS



TRACY

LEGEND

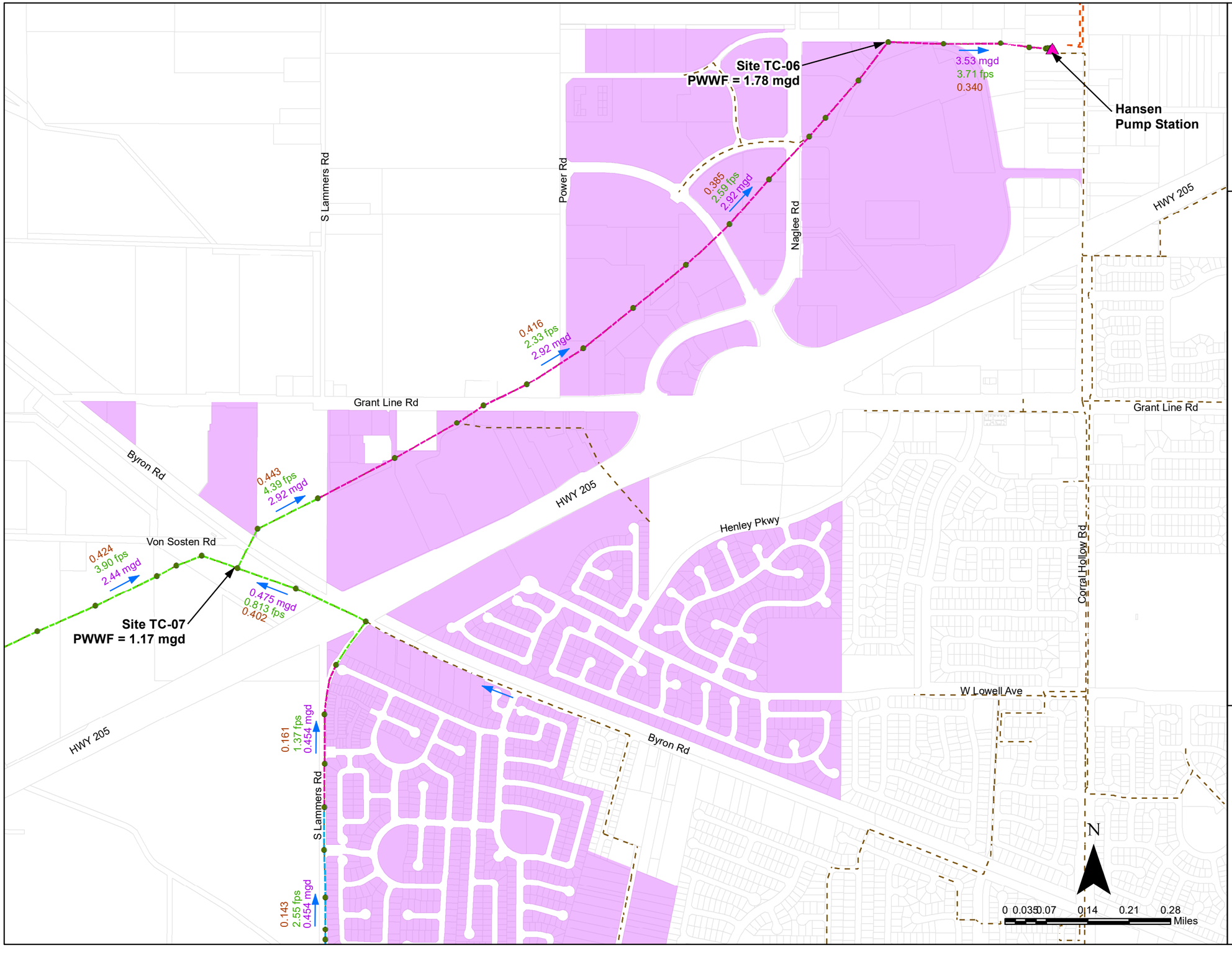
- Sewer Manhole
- 21 - inch Sewer Pipeline
- 24 - inch Sewer Pipeline
- 30 - inch Sewer Pipeline
- Existing Sewer Force Main
- Existing Sewer Pipeline
- Existing Contributing Area of Sewer Flow to Hansen Road Sewer System
- Direction of Flow
- # mgd — Total Peak Flow
- # fps — Velocity
- # — d/D Ratio

Figure 8

SEWER CAPACITY ANALYSIS RESULTS

OPTION 2
Existing Sewer Pipelines in Lammers Road

BLACKWATER CONSULTING ENGINEERS



TRACY

LEGEND

- Pump Station
- Sewer Manhole
- 21 - inch Sewer Pipeline
- 24 - inch Sewer Pipeline
- 30 - inch Sewer Pipeline
- Existing Sewer Force Main
- Existing Sewer Pipeline
- Existing Contributing Area of Sewer Flow to Hansen Road Sewer System
- Direction of Flow
- # mgd Total Peak Flow
- # fps Velocity
- # d/D Ratio

Figure 9

SEWER CAPACITY ANALYSIS RESULTS

OPTION 2
Existing Hansen Road Sewer System

BLACKWATER CONSULTING ENGINEERS

Existing Hansen Pump Station Analysis

The Hansen Pump Station has a capacity of approximately 5,680 gpm (8.08 mgd) with two out of three pumps operating based on flow test data provided by the City via email on December 31, 2019. The modeling analysis calculates a total influent flow at the Hansen Pump Station of 3.53 mgd with the Project. The Hansen Pump Station has sufficient capacity to accommodate the additional sewer flows generated by the Project, based on the existing capacity of 8.08 mgd.

Proposed Force Mains Analysis

Sewer from the Hansen Pump Station is currently pumped into the Larch Pump Station. The Larch Pump Station does not have capacity to serve the Costco Annexation project. Consistent with the 2012 WWMP, off-site improvement required to serve the Costco Annexation project includes construction of approximately 10,500 linear feet of a 24-inch sewer force main from the Hansen Pump Station to the WWTP. Refer to **Table 6** for a summary of the velocity estimated for the proposed 24-inch diameter force main.

Table 6 - Estimated Force Main Velocity from Hansen Pump Station to WWTP

Force Main Size (inch)	Total PWWF (mgd)	Total PWWF (cfs)	Area (ft^2)	Velocity[1] (fps)
24	3.53	5.46	3.14	1.74

[1]Velocity is equal to the total PWWF divided by the area.

Force mains with a velocity greater than 8 fps were identified as deficient. The proposed 24-inch force main from the Hansen Pump Station to the WWTP has capacity to serve the Project.

SECTION 3 – SYSTEM DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

A summary of the recommendation for each option is as follows:

- For Option 1, the existing Hansen Road Sewer System and the Hansen Pump Station have the capacity to serve the Project. No off-site improvements are required to serve the Project. This option is not consistent with the 2012 WWMP recommendation. If the Project plans to utilize the Hansen Road Sewer System, a condition assessment is recommended to determine any deficiencies due to the age of the Hansen Road Sewer System.

- For Option 2, the existing 8-inch sewer pipeline in Schulte Road does not have sufficient capacity to accommodate the Project. If the Project plans to utilize the proposed Lammers Sewer System, the Project will need to replace approximately 11,000 linear feet of the existing 8-inch sewer pipeline in Schulte Road with a new 10-inch sewer pipeline.

Evaluation of the City's existing WWTP capacity to serve the Project is not included in the scope of the TM. The Project proponent should consult with the City Utilities Department for evaluation of the WWTP's capacity to serve the Project.

Any changes or modifications to the Project, sewer system layout, or development of the Project inconsistent with assumptions made in this analysis will require additional evaluation.

APPENDIX A

PRELIMINARY UTILITY PLAN
FOR SCHULTE WAREHOUSE

APN:
209-23-002

APN:
209-23-026

WEST SCHULTE ROAD

DELTA MENDOTA CANAL

HANSEN ROAD

LEGEND

- PROPOSED MANHOLE
- PROPOSED CITY DRAIN STORM INLET
- PROPOSED SITE DRAIN INLET
- PROPOSED FIRE HYDRANT
- SS — PROPOSED SANITARY SEWER LINE
- SD — PROPOSED STORM DRAIN PIPE
- W — PROPOSED WATER LINE
- FS — PROPOSED FIRE SERVICE LINE
- FH — PROPOSED FIRE HYDRANT LINE

0' 25' 50' 100'
SCALE: 1"=50'

Know what's below.
Call before you dig.

SIEGFRIED
3428 Brookside Rd
Stockton,CA 95219
209-943-2021

REGISTERED PROFESSIONAL ENGINEER
ADAM K. MERRILL
No. 79826
Exp. 12/31/22
CIVIL
STATE OF CALIFORNIA

PANATTONI

NEW WAREHOUSE BUILDING

16286 W SCHULTE RD
TRACY, CA 95377

JOB NO. 20174
SCALE AS SHOWN
DATE June 14, 2021
CHECKED BY AKM
DRAWN BY JR

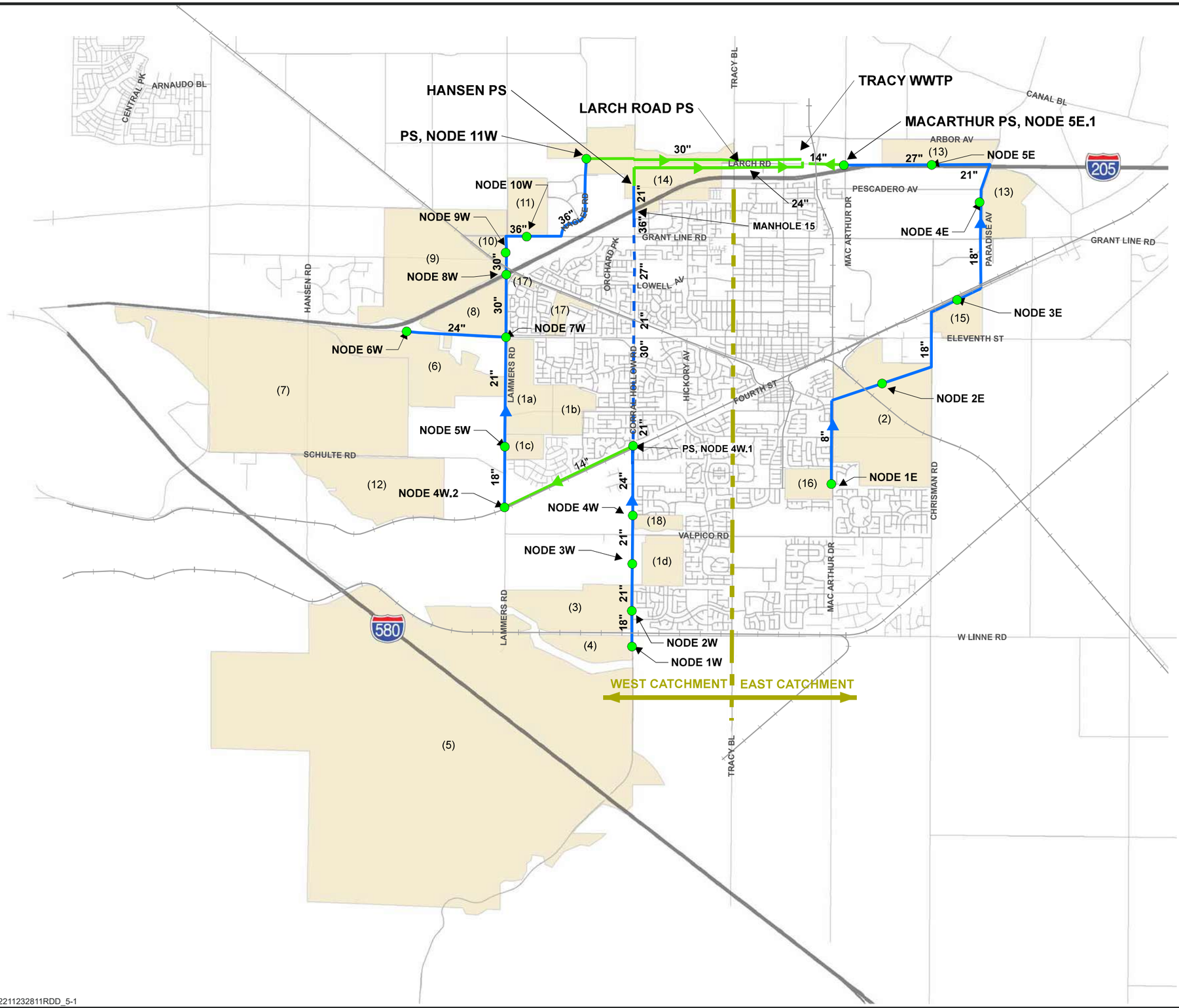
UTILITY PLAN

C5.0

X:\JOBS\20174\20174-1686 V SCHULTE RD TRACY SITE\PLANS AND GRAPHICS\PRODUCTION\PLANS\20174 - C5.0 UTILITY PLAN.DWG

APPENDIX B

2012 WWMP, FIGURE 5-1
MAJOR WASTEWATER CONVEYANCE FACILITIES



LEGEND

- Future Service Areas
- Node # (point of wastewater contribution)
- Proposed Force Main
- Proposed Gravity Main
- Proposed Gravity Main, Replacement
- 18" — Pipe Diameter (See pipe schedule)

FUTURE SERVICE AREAS INDEX

(1a) UR 5 (Bright)
(1b) UR 7 (Bright)
(1c) UR 8 (Fahmy)
(1d) UR 9 (Keenan)
(2) UR 1 (Alvarez & others)
(3) UR 10 (Ellis)
(4) South Linne
(5) Tracy Hills
(6) Gateway (excluding Phase 1)
(7) Cordes Ranch
(8) Bright
(9) Catellus
(10) Filios
(11) I-205 Expansion
(12) Westside Industrial
(13) Eastside Industrial
(14) Larch Clover
(15) Chrisman Road
(16) Rocha
(17) Berg/Byron
(18) Kagehiro

ABBREVIATIONS

EXST	EXISTING
FM	FORCE MAIN
PS	PUMP STATION
WWTP	WASTEWATER TREATMENT PLANT

N

0 0.5 1
Miles

FIGURE 5-1
MAJOR WASTEWATER CONVEYANCE FACILITIES
TRACY WASTEWATER MASTER PLAN

CH2MHILL®

WBG042211232811RDD_5-1

APPENDIX C

DATA OUTPUT
FLOW DATA

Site TC-06
PWWF = 1.78 mgd

Site TC-07
PWWF = 1.17 mgd

To Larch
Pump Station

Hansen
Pump Station

See Figure C-2

3378 CDT-265 3379 CDT-677 3381 CDT-675 3383 3384 JCT-374 JCT-372
CDT-263 3377 CDT-261 3376 CDT-259 3375 CDT-257 3374 CDT-255 3373 CDT-253 3372 CDT-251 3371 CDT-249 3370 CDT-247 3369 CDT-245 3368 CDT-243 3367
3365 CDT-679 3364 CDT-231 3363 CDT-235 3362 CDT-233 3361 CDT-229 3360 3359 CDT-225 3358 CDT-223 3357 CDT-221
CDT-293 3446 789 1749 CDT-841 JCT-524 CDT-839 JCT-522 CDT-837 JCT-520 CDT-835 JCT-518 CDT-833 JCT-516 CDT-831 JCT-514 CDT-829 JCT-512 JCT-510

S Lammers Rd
Power Rd
Naglee Rd
Grant Line Rd
Byron Rd
Von Sosten Rd
HWY 205
Henley Pkwy
Corral Hollow Rd
W Lowell Ave

N

0 0.035 0.07 0.14 0.21 0.28 Miles

TRACY

LEGEND

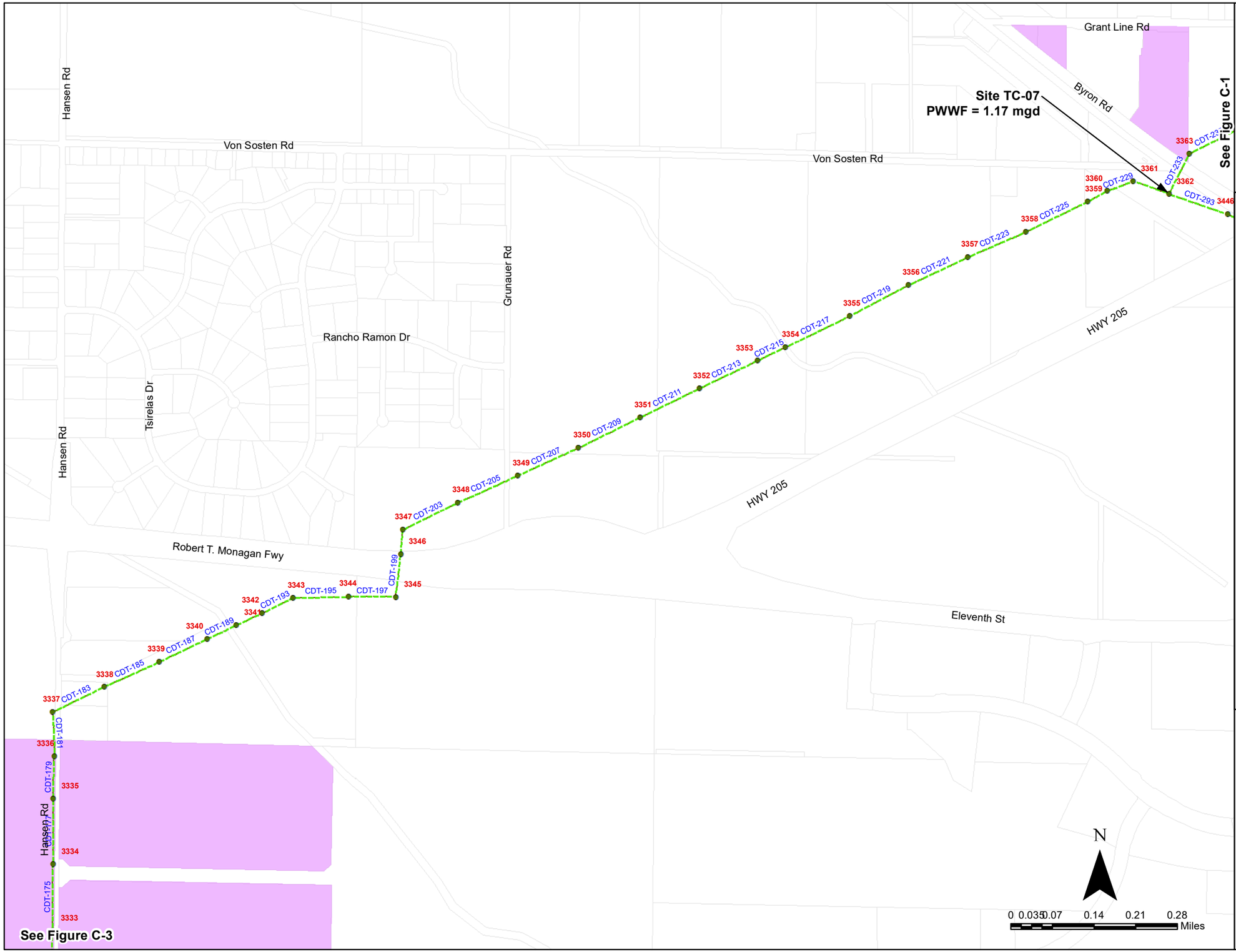
- Pump Station
- Sewer Manhole
- 21 - inch Sewer Pipeline
- 24 - inch Sewer Pipeline
- 30 - inch Sewer Pipeline
- Existing Sewer Force Main
- Existing Sewer Pipeline
- Existing Contributing Area of Sewer Flow to Hansen Road Sewer System
- # Junction ID
- # Pipe ID

Figure C-1

SEWER CAPACITY ANALYSIS RESULTS

Existing Hansen Road Sewer System

BLACKWATER CONSULTING ENGINEERS



TRACY

LEGEND

- Sewer Manhole
- 21 - inch Sewer Pipeline
- Existing Sewer Force Main
- Existing Sewer Pipeline
- Existing Contributing Area of Sewer Flow to Hansen Road Sewer System
- # Junction ID
- # Pipe ID

Figure C-2

SEWER CAPACITY ANALYSIS RESULTS

Existing Hansen Road Sewer System

BLACKWATER CONSULTING ENGINEERS

TRACY

LEGEND

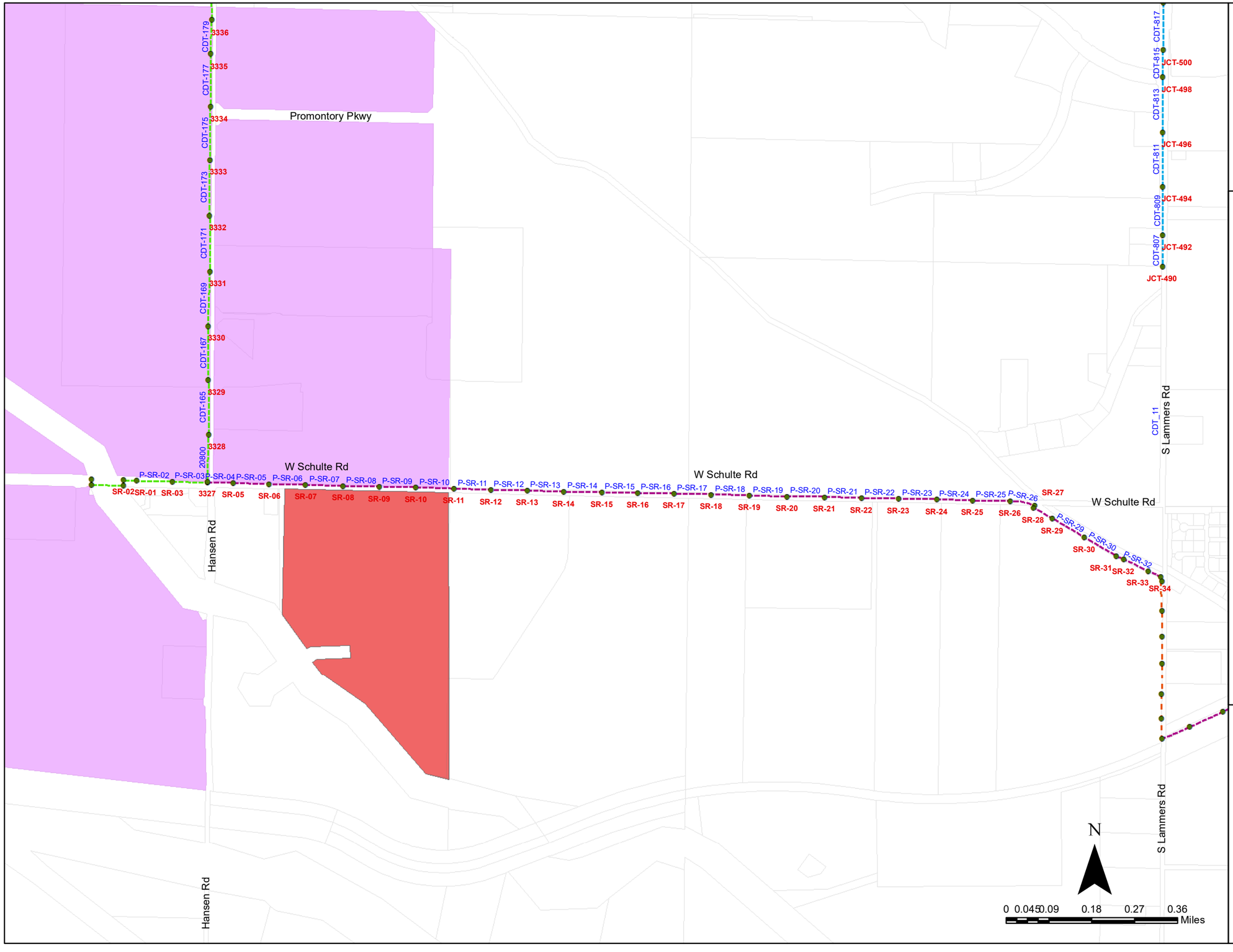
- Sewer Manhole
- 8 - inch Sewer Pipeline
- 21 - inch Sewer Pipeline
- Existing Sewer Force Main
- Existing Sewer Pipeline
- Existing Contributing Area of Sewer Flow to Hansen Road Sewer System
- Schulte Warehouse (Project)
- # Junction ID
- # Pipe ID

Figure C-3

SEWER CAPACITY ANALYSIS RESULTS

Existing Hansen Road Sewer System

BLACKWATER CONSULTING ENGINEERS



TRACY

LEGEND

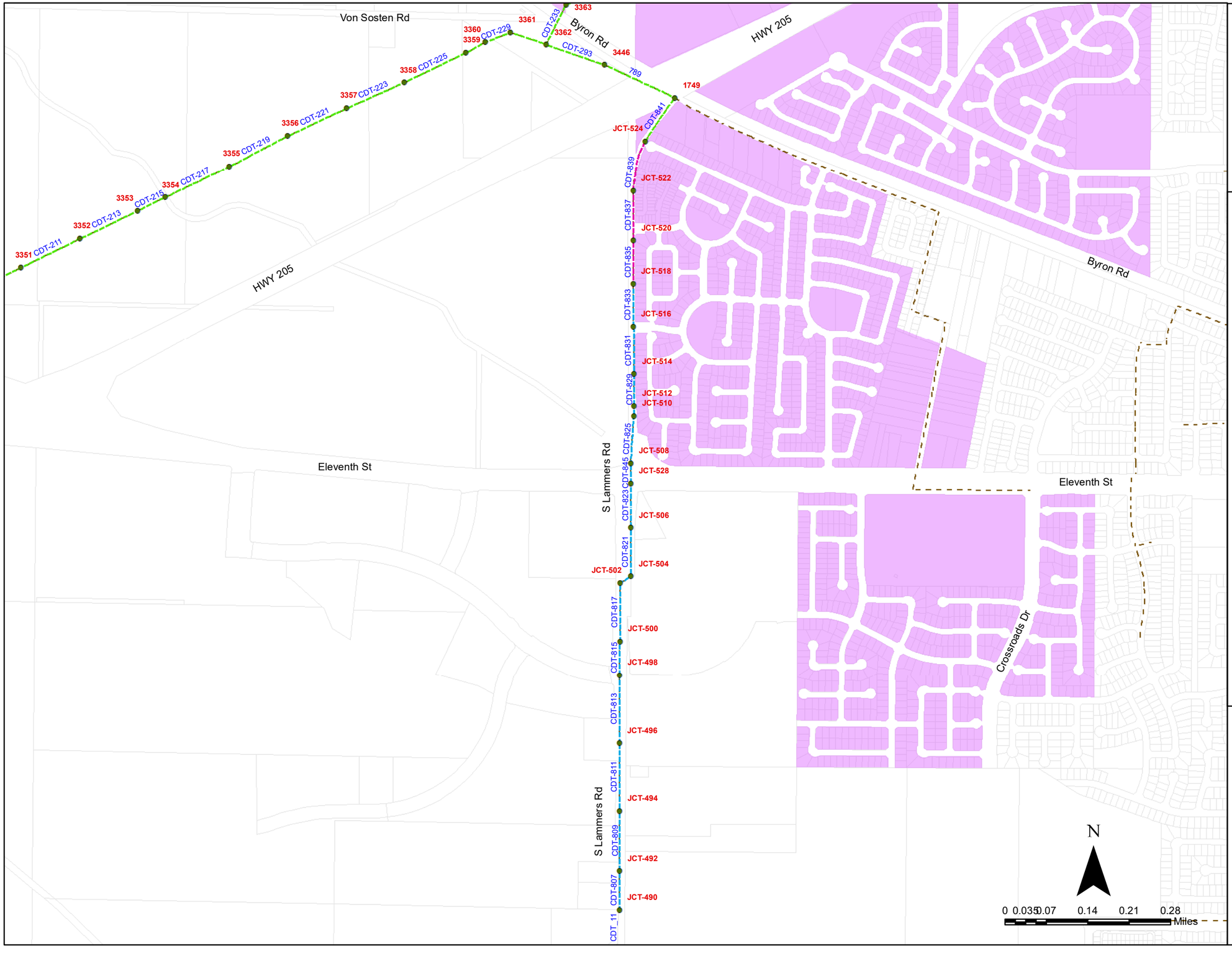
- Pump Station
- Sewer Manhole
- 8 - inch Sewer Pipeline
- 24 - inch Sewer Pipeline
- 21 - inch Sewer Pipeline
- Existing Sewer Force Main
- Costco Annexation (Proposed Project)
- Existing Contributing Area of Sewer Flow to Hansen Road Sewer System
- # Junction ID
- # Pipe ID

Figure C-4

SEWER CAPACITY ANALYSIS RESULTS

Existing Sewer Pipeline in Schulte Road

BLACKWATER CONSULTING ENGINEERS



TRACY

LEGEND

- Pump Station
- Sewer Manhole
- 21 - inch Sewer Pipeline
- 24 - inch Sewer Pipeline
- 30 - inch Sewer Pipeline
- Existing Sewer Force Main
- Existing Sewer Pipeline
- Existing Contributing Area of Sewer Flow to Hansen Road Sewer System
- # Junction ID
- # Pipe ID

Figure C-5

SEWER CAPACITY ANALYSIS RESULTS

Existing Sewer Pipelines in Lammers Road

BLACKWATER CONSULTING ENGINEERS

OPTION 1

Manhole Report

ID	Invert Elevation (ft)	Rim Elevation (ft)	Depth (ft)	Head (ft)	Head Class	Pressure (psi)	Volume (ft3)	Lateral Inflow (mgd)	Total Inflow (mgd)	Flooding (mgd)
1749	19.01	33.3	0.397	19.407	Below Link Crown	0.172	0	0.021	0.403	0
3328	159.61	170	0.102	159.712	Below Link Crown	0.044	0	0	0.072	0
3329	153.01	163	0.38	153.39	Below Link Crown	0.165	0	1.168	1.24	0
3330	144.79	156.5	0.468	145.258	Below Link Crown	0.203	0	0	1.24	0
3331	140.41	151	0.405	140.815	Below Link Crown	0.175	0	0	1.24	0
3332	133.81	144.4	0.411	134.221	Below Link Crown	0.178	0	0	1.24	0
3333	127.63	138.6	0.461	128.091	Below Link Crown	0.2	0	0	1.24	0
3334	123.67	134	0.429	124.099	Below Link Crown	0.186	0	0	1.24	0
3335	118.69	129.3	0.42	119.11	Below Link Crown	0.182	0	0	1.24	0
3336	115.09	125.6	0.4	115.49	Below Link Crown	0.173	0	0	1.24	0
3337	110.7	121.3	0.417	111.117	Below Link Crown	0.181	0	0	1.24	0
3338	105.9	116.9	0.421	106.321	Below Link Crown	0.182	0	0	1.24	0
3339	100.7	111.7	0.389	101.089	Below Link Crown	0.169	0	0	1.24	0
3340	94.8	107	0.521	95.321	Below Link Crown	0.226	0	0.495	1.735	0
3341	92.18	103.6	0.42	92.6	Below Link Crown	0.182	0	0	1.735	0
3342	87.58	99.5	0.508	88.088	Below Link Crown	0.22	0	0	1.735	0
3343	84.9	96	0.538	85.438	Below Link Crown	0.233	0	0	1.735	0
3344	81.52	92.5	0.655	82.175	Below Link Crown	0.284	0	0.78	2.515	0
3345	78.7	90.3	0.751	79.451	Below Link Crown	0.325	0	0	2.515	0
3346	76.94	87.9	0.631	77.571	Below Link Crown	0.273	0	0	2.515	0
3347	75.17	86.3	0.601	75.771	Below Link Crown	0.261	0	0	2.515	0
3348	69.9	80.9	0.574	70.474	Below Link Crown	0.249	0	0	2.515	0
3349	63.4	74.8	0.574	63.974	Below Link Crown	0.249	0	0	2.515	0
3350	56.84	68.3	0.615	57.455	Below Link Crown	0.266	0	0	2.515	0
3351	51.6	64.2	0.654	52.254	Below Link Crown	0.283	0	0	2.515	0
3352	47.6	58.6	0.875	48.475	Below Link Crown	0.379	0	0	2.515	0
3353	44.3	56	0.778	45.078	Below Link Crown	0.337	0	0	2.515	0
3354	42.15	54	0.929	43.079	Below Link Crown	0.402	0	0	2.515	0
3355	39	50	0.791	39.791	Below Link Crown	0.343	0	0	2.515	0
3356	34.71	46	0.896	35.606	Below Link Crown	0.388	0	0	2.515	0
3357	31.6	42.7	0.801	32.401	Below Link Crown	0.347	0	0	2.515	0
3358	27.22	38.2	0.693	27.913	Below Link Crown	0.3	0	0	2.515	0
3359	20.02	34	0.814	20.834	Below Link Crown	0.353	0	0	2.515	0
3360	18.72	33	1.235	19.955	Below Link Crown	0.535	0	0	2.515	0
3361	18.32	31.1	1.137	19.457	Below Link Crown	0.493	0	0	2.515	0
3362	17.5	30.5	0.975	18.475	Below Link Crown	0.423	0	0	2.917	0
3363	16.5	28	0.831	17.331	Below Link Crown	0.36	0	0	2.917	0
3364	13.95	26.7	0.721	14.671	Below Link Crown	0.312	0	0	2.917	0
3365	10.55	25.4	0.558	11.108	Below Link Crown	0.242	0	0	2.917	0
3367	3.92	24.2	0.54	4.46	Below Link Crown	0.234	0	0	2.917	0
3368	0.64	25.2	0.947	1.587	Below Link Crown	0.41	0	0	2.917	0
3369	0.08	20.6	1.086	1.166	Below Link Crown	0.471	0	0	2.917	0
3370	-0.4	20	0.995	0.595	Below Link Crown	0.431	0	0	2.917	0
3371	-1.02	18.4	1.034	0.014	Below Link Crown	0.448	0	0	2.917	0
3372	-1.64	15.4	0.908	-0.732	Below Link Crown	0.394	0	0	2.917	0
3373	-2.45	16	1.017	-1.433	Below Link Crown	0.441	0	0	2.917	0
3374	-3.02	13.1	0.907	-2.113	Below Link Crown	0.393	0	0	2.917	0
3375	-3.82	14	1.064	-2.756	Below Link Crown	0.461	0	0	2.917	0
3376	-4	13	0.948	-3.052	Below Link Crown	0.411	0	0	2.917	0
3377	-4.68	13	0.933	-3.747	Below Link Crown	0.404	0	0	2.917	0
3378	-5.37	12.4	1.073	-4.297	Below Link Crown	0.465	0	0.609	3.526	0
3379	-6.08	13	0.798	-5.282	Below Link Crown	0.346	0	0	3.526	0
3381	-7.93	13	0.901	-7.029	Below Link Crown	0.39	0	0	3.526	0
3383	-8.55	13.8	0.835	-7.715	Below Link Crown	0.362	0	0	3.526	0
3384	-9	13.4	0.962	-8.038	Below Link Crown	0.417	0	0	3.526	0
3446	18.169	31	0.397	18.566	Below Link Crown	0.172	0	0	0.403	0
JCT-372	-9.26	13.1	0.283	-8.977	Below Link Crown	0.123	0	0	3.526	0
JCT-374	-9.03	13.1	0.962	-8.068	Below Link Crown	0.417	0	0	3.526	0
JCT-490	57.17	79.43	0.264	57.434	Below Link Crown	0.114	0	0	0.382	0
JCT-492	55.49	76.76	0.266	55.756	Below Link Crown	0.115	0	0	0.382	0
JCT-494	52.9	73.1	0.263	53.163	Below Link Crown	0.114	0	0	0.382	0
JCT-496	49.9	69.9	0.267	50.167	Below Link Crown	0.115	0	0	0.382	0
JCT-498	46.98	66.08	0.254	47.234	Below Link Crown	0.11	0	0	0.382	0
JCT-500	45.25	64.28	0.263	45.513	Below Link Crown	0.114	0	0	0.382	0
JCT-502	42.66	61.13	0.262	42.922	Below Link Crown	0.114	0	0	0.382	0
JCT-504	42.09	60.72	0.264	42.354	Below Link Crown	0.115	0	0	0.382	0

JCT-506	40	59	0.293	40.293	Below Link Crown	0.127	0	0	0.382	0
JCT-508	35.4	55.7	0.242	35.642	Below Link Crown	0.105	0	0	0.382	0
JCT-510	32.41	52.3	0.291	32.701	Below Link Crown	0.126	0	0	0.382	0
JCT-512	32.1	52.3	0.263	32.363	Below Link Crown	0.114	0	0	0.382	0
JCT-514	30.7	48.8	0.263	30.963	Below Link Crown	0.114	0	0	0.382	0
JCT-516	28.5	46	0.267	28.767	Below Link Crown	0.116	0	0	0.382	0
JCT-518	26.625	44	0.247	26.872	Below Link Crown	0.107	0	0	0.382	0
JCT-520	24.7	42.4	0.5	25.2	Below Link Crown	0.217	0	0	0.382	0
JCT-522	22.5	38	0.247	22.747	Below Link Crown	0.107	0	0	0.382	0
JCT-524	19.77	36.7	0.36	20.13	Below Link Crown	0.156	0	0	0.382	0
JCT-528	38.36	58.96	0.197	38.557	Below Link Crown	0.085	0	0	0.382	0
SR-01	162.71	202.7	0	162.71	Below Link Invert	0	0	0	0	0
SR-02	162.98	204	0	162.98	Below Link Invert	0	0	0	0	0
SR-03	162	188.8	0	162	Below Link Crown	0	0	0	0	0
SR-04	161.6	178.3	0.14	161.74	Below Link Crown	0.061	0	0.076	0.076	0
SR-05	160.2	171	0.043	160.243	Below Link Crown	0.018	0	0	0.004	0
SR-06	158.7	167.2	0.046	158.746	Below Link Crown	0.02	0	0	0.004	0
SR-07	157.2	163.9	0.036	157.236	Below Link Crown	0.016	0	0	0.004	0
SR-08	153.8	159.8	0.029	153.829	Below Link Crown	0.013	0	0	0.004	0
SR-09	146	154	0.506	146.506	Below Link Crown	0.219	0	0.378	0.382	0
SR-10	144.5	151	0.329	144.829	Below Link Crown	0.142	0	0	0.382	0
SR-11	140.5	146.5	0.339	140.839	Below Link Crown	0.147	0	0	0.382	0
SR-12	136.7	145	0.314	137.014	Below Link Crown	0.136	0	0	0.382	0
SR-13	132	138	0.379	132.379	Below Link Crown	0.164	0	0	0.382	0
SR-14	129.5	138	0.419	129.919	Below Link Crown	0.181	0	0	0.382	0
SR-15	127.5	133.5	0.379	127.879	Below Link Crown	0.164	0	0	0.382	0
SR-16	125	133	0.379	125.379	Below Link Crown	0.164	0	0	0.382	0
SR-17	122.5	130.2	0.482	122.982	Below Link Crown	0.209	0	0	0.382	0
SR-18	121	128.2	0.387	121.387	Below Link Crown	0.168	0	0	0.382	0
SR-19	118.5	125.7	0.351	118.851	Below Link Crown	0.152	0	0	0.382	0
SR-20	115.3	122.3	0.355	115.655	Below Link Crown	0.154	0	0	0.382	0
SR-21	112.2	119	0.397	112.597	Below Link Crown	0.172	0	0	0.382	0
SR-22	109.8	116.2	0.334	110.134	Below Link Crown	0.145	0	0	0.382	0
SR-23	106	112.9	0.366	106.366	Below Link Crown	0.159	0	0	0.382	0
SR-24	103.2	109.2	0.375	103.575	Below Link Crown	0.162	0	0	0.382	0
SR-25	100.6	106.6	0.415	101.015	Below Link Crown	0.18	0	0	0.382	0
SR-26	98.7	104.7	0.599	99.299	Below Link Crown	0.259	0	0	0.382	0
SR-27	97.89	104.6	0.254	98.144	Below Link Crown	0.11	0	0	0.382	0
SR-28	97.14	104.2	0.425	97.565	Below Link Crown	0.184	0	0	0.382	0
SR-29	96.1	102.5	0.45	96.55	Below Link Crown	0.195	0	0	0.382	0
SR-30	94.6	104.1	0.461	95.061	Below Link Crown	0.2	0	0	0.382	0
SR-31	93.1	105	0.429	93.529	Below Link Crown	0.186	0	0	0.382	0
SR-32	92.8	105.1	0.454	93.254	Below Link Crown	0.197	0	0	0.382	0
SR-33	91.7	105.5	0.518	92.218	Below Link Crown	0.225	0	0	0.382	0
SR-34	90.97	104.8	0.232	91.202	Below Link Crown	0.1	0	0	0.382	0

OPTION 1

Pipe Report

ID	From ID	To ID	Type	Length (ft)	Slope	Flow (mgd)	Flow Class	Depth (ft)	HGL (ft)	Velocity (ft/s)	Flow Volume (ft3)	Froude Number	Capacity d/D	Surcharged d/D	Velocity*Depth (ft2/second)	Top Width (ft)
20800	SR-04	3328	Circular Pipe	526.708	0.004	0.072	Free Surface	0.121	161.74	1.527	38.563	0.937	0.03	0.069	0.185	0.885
20801	3384	JCT-374	Circular Pipe	16.676	0.002	3.526	Free Surface	0.962	-8.038	3.134	29.03	0.653	0.355	0.385	3.015	2.432
789	1749	3446	Circular Pipe	692.036	0.001	0.403	Free Surface	0.397	19.407	1.521	283.63	0.507	0.17	0.227	0.604	1.465
CDT-165	3328	3329	Circular Pipe	601.616	0.011	0.072	Free Surface	0.241	159.712	0.557	133.104	0.241	0.083	0.138	0.134	1.206
CDT-167	3329	3330	Circular Pipe	601.588	0.014	1.24	Free Surface	0.424	153.39	4.262	271.625	1.371	0.187	0.242	1.808	1.5
CDT-169	3330	3331	Circular Pipe	601.839	0.006	1.24	Free Surface	0.468	145.258	3.709	311.348	1.131	0.215	0.249	1.736	1.514
CDT-171	3331	3332	Circular Pipe	618.968	0.011	1.24	Free Surface	0.408	140.815	4.503	263.734	1.479	0.177	0.233	1.837	1.479
CDT-173	3332	3333	Circular Pipe	619.05	0.01	1.24	Free Surface	0.436	134.221	4.097	290.086	1.298	0.195	0.249	1.787	1.513
CDT-175	3333	3334	Circular Pipe	590.048	0.007	1.24	Free Surface	0.445	128.091	3.985	284.146	1.249	0.2	0.254	1.772	1.523
CDT-177	3334	3335	Circular Pipe	578.451	0.009	1.24	Free Surface	0.424	124.099	4.261	260.464	1.37	0.187	0.242	1.808	1.5
CDT-179	3335	3336	Circular Pipe	376.171	0.01	1.24	Free Surface	0.41	119.11	4.472	161.397	1.465	0.178	0.234	1.833	1.482
CDT-181	3336	3337	Circular Pipe	393.729	0.011	1.24	Free Surface	0.409	115.49	4.495	168.068	1.475	0.177	0.233	1.836	1.48
CDT-183	3337	3338	Circular Pipe	507.094	0.009	1.24	Free Surface	0.419	111.117	4.342	224.105	1.406	0.184	0.239	1.818	1.493
CDT-185	3338	3339	Circular Pipe	535.714	0.01	1.24	Free Surface	0.405	106.321	4.551	225.849	1.5	0.175	0.231	1.843	1.475
CDT-187	3339	3340	Circular Pipe	473.52	0.012	1.24	Free Surface	0.455	101.089	3.859	236.511	1.195	0.207	0.26	1.756	1.535
CDT-189	3340	3341	Circular Pipe	282.02	0.009	1.735	Free Surface	0.471	95.321	5.15	147.279	1.566	0.217	0.269	2.423	1.551
CDT-191	3341	3342	Circular Pipe	256.156	0.018	1.735	Free Surface	0.464	92.6	5.255	131.053	1.61	0.212	0.265	2.437	1.544
CDT-193	3342	3343	Circular Pipe	302.679	0.009	1.735	Free Surface	0.508	88.088	4.631	175.406	1.351	0.241	0.299	2.351	1.602
CDT-195	3343	3344	Circular Pipe	497.602	0.007	1.735	Free Surface	0.597	85.438	3.706	361.007	0.988	0.301	0.341	2.212	1.659
CDT-197	3344	3345	Circular Pipe	416.524	0.007	2.515	Free Surface	0.703	82.175	4.303	376.815	1.045	0.376	0.402	3.026	1.716
CDT-199	3345	3346	Circular Pipe	382.018	0.005	2.515	Free Surface	0.691	79.451	4.404	337.785	1.08	0.367	0.395	3.044	1.711
CDT-201	3346	3347	Circular Pipe	217.189	0.008	2.515	Free Surface	0.616	77.571	5.142	164.348	1.347	0.315	0.352	3.168	1.671
CDT-203	3347	3348	Circular Pipe	543.251	0.01	2.515	Free Surface	0.588	75.771	5.486	385.317	1.476	0.295	0.336	3.224	1.653
CDT-205	3348	3349	Circular Pipe	582.629	0.011	2.515	Free Surface	0.574	70.474	5.667	400.026	1.545	0.285	0.328	3.252	1.643
CDT-207	3349	3350	Circular Pipe	587.433	0.011	2.515	Free Surface	0.594	63.974	5.401	423.295	1.444	0.299	0.34	3.211	1.658
CDT-209	3350	3351	Circular Pipe	610.56	0.009	2.515	Free Surface	0.635	57.455	4.94	480.95	1.272	0.327	0.363	3.135	1.683
CDT-211	3351	3352	Circular Pipe	587.234	0.007	2.515	Free Surface	0.765	52.254	3.853	593.989	0.89	0.42	0.437	2.946	1.736
CDT-213	3352	3353	Circular Pipe	569.267	0.006	2.515	Free Surface	0.826	48.475	3.482	636.101	0.767	0.465	0.472	2.877	1.747
CDT-215	3353	3354	Circular Pipe	276.811	0.008	2.515	Free Surface	0.853	45.078	3.342	322.338	0.722	0.484	0.488	2.851	1.749
CDT-217	3354	3355	Circular Pipe	631.227	0.005	2.515	Free Surface	0.86	43.079	3.308	742.521	0.711	0.489	0.491	2.844	1.749
CDT-219	3355	3356	Circular Pipe	587.32	0.007	2.515	Free Surface	0.844	39.791	3.389	674.356	0.737	0.477	0.482	2.86	1.749
CDT-221	3356	3357	Circular Pipe	582.198	0.005	2.515	Free Surface	0.849	35.606	3.364	673.362	0.729	0.481	0.485	2.855	1.749
CDT-223	3357	3358	Circular Pipe	562.08	0.008	2.515	Free Surface	0.747	32.401	3.973	550.519	0.931	0.407	0.427	2.967	1.731
CDT-225	3358	3359	Circular Pipe	610.56	0.012	2.515	Free Surface	0.753	27.913	3.928	605.03	0.915	0.412	0.43	2.959	1.733
CDT-227	3359	3360	Circular Pipe	196.673	0.007	2.515	Free Surface	1.025	20.834	2.659	286.219	0.509	0.608	0.586	2.725	1.724
CDT-229	3360	3361	Circular Pipe	241.706	0.002	2.515	Free Surface	1.186	19.955	2.242	419.189	0.384	0.721	0.678	2.659	1.636
CDT-231	3361	3362	Circular Pipe	336.596	0.002	2.515	Free Surface	1.056	19.457	2.564	510.275	0.48	0.631	0.604	2.708	1.712
CDT-233	3362	3363	Circular Pipe	395.805	0.003	2.917	Free Surface	0.903	18.475	3.606	495.37	0.751	0.52	0.516	3.256	1.749
CDT-235	3363	3364	Circular Pipe	602.755	0.004	2.917	Free Surface	0.776	17.331	4.387	620.599	1.005	0.428	0.443	3.403	1.739
CDT-237	3364	3365	Circular Pipe	771.929	0.004	2.917	Free Surface	0.639	14.671	4.555	767.789	1.191	0.202	0.256	2.912	2.181
CDT-243	3367	3368	Circular Pipe	283.971	0.012	2.917	Free Surface	0.744	4.46	3.687	352.859	0.888	0.249	0.297	2.742	2.285
CDT-245	3368	3369	Circular Pipe	429.497	0.001	2.917	Free Surface	1.017	1.587	2.408	805.448	0.486	0.382	0.407	2.448	2.456
CDT-247	3369	3370	Circular Pipe	598.493	0.001	2.917	Free Surface	1.041	1.166	2.333	1157.806	0.464	0.394	0.416	2.428	2.464
CDT-249	3370	3371	Circular Pipe	571.847	0.001	2.917	Free Surface	1.015	0.595	2.413	1069.854	0.487	0.381	0.406	2.449	2.455
CDT-251	3371	3372	Circular Pipe	604.39	0.001	2.917	Free Surface	0.971	0.014	2.559	1066.734	0.53	0.359	0.389	2.486	2.437
CDT-253	3372	3373	Circular Pipe	531.985	0.002	2.917	Free Surface	0.963	-0.732	2.591	927.482	0.539	0.355	0.385	2.494	2.433
CDT-255	3373	3374	Circular Pipe	532.74	0.001	2.917	Free Surface	0.962	-1.433	2.592	928.318	0.54	0.355	0.385	2.494	2.432
CDT-257	3374	3375	Circular Pipe	523.809	0.002	2.917	Free Surface	0.986	-2.113	2.508	943.375	0.515	0.367	0.394	2.473	2.443
CDT-259	3375	3376	Circular Pipe	221.479	0.001	2.917	Free Surface	1.006	-2.756	2.441	409.786	0.495	0.377	0.403	2.456	2.452
CDT-261	3376	3377	Circular Pipe	446.757	0.002	2.917	Free Surface	0.941	-3.052	2.671	754.957	0.564	0.344	0.376	2.513	2.422
CDT-263	3377	3378	Circular Pipe	432.756	0.002	2.917	Free Surface	1.003	-3.747	2.45	797.639	0.498	0.375	0.401	2.459	2.451
CDT-265	3378	3379	Circular Pipe	491.989	0.001	3.526	Free Surface	0.936	-4.297	3.253	827.531	0.689	0.342	0.374	3.044	2.419
CDT-275	3383	3384	Circular Pipe	146.936	0.003	3.526	Free Surface	0.898	-7.715	3.438	233.35	0.745	0.323	0.359	3.088	2.399
CDT-293	3446	3362	Circular Pipe	550.75	0.001	0.403	Free Surface	0.686	18.566	0.712	492.337	0.175	0.364	0.392	0.489	1.708
CDT-673	JCT-374	JCT-372	Circular Pipe	22.222	0.01	3.526	Free Surface	0.622	-8.068	5.717	22.754	1.516	0.194	0.249	3.558	2.161
CDT-675	3381	3383	Circular Pipe	257.723	0.002	3.526	Free Surface	0.868	-7.029	3.604	390.221	0.796	0.308	0.347	3.127	2.38
CDT-677	3379	3381	Circular Pipe	509.069	0.004	3.526	Free Surface	0.849	-5.282	3.711	748.961	0.83	0.3	0.34	3.152	2.368
CDT-679	3365	3367	Circular Pipe	636.29	0.01	2.917	Free Surface	0.549	11.108	5.65	508.493	1.603	0.163	0.22	3.103	2.07
CDT-807	JCT-490	JCT-492	Circular Pipe	344	0.005	0.382	Free Surface	0.265	57.434	2.391	84.924	0.987	0.079	0.132	0.633	1.355
CDT-809	JCT-492	JCT-494	Circular Pipe	539	0.005	0.382	Free Surface	0.264	55.756	2.401	132.523	0.993	0.078	0.132	0.634	1.353
CDT-811	JCT-494	JCT-496	Circular Pipe	600	0.005	0.382	Free Surface	0.265	53.163	2.395	147.881	0.989	0.078	0.132	0.634	1.354
CDT-813	JCT-496	JCT-498	Circular Pipe	600	0.005	0.382	Free Surface	0.26	50.167	2.454	144.32	1.022	0.077	0.13	0.638	1.344
CDT-815	JCT-498	JCT-500	Circular Pipe	300	0.006	0.382	Free Surface	0.258	47.234	2.479	71.442	1.036	0.076	0.129	0.64	1.34
CDT-817	JCT-500	JCT-502	Circular Pipe	520	0.005	0.382	Free Surface	0.262	45.513	2.422	126.724	1.005	0.078	0.131	0.636	1.349
CDT-819	JCT-502	JCT-504	Circular Pipe	113	0.005	0.382	Free Surface	0.263	42.922	2.413	27.643	0.999	0.078	0.132	0.635	1.351
CDT-821	JCT-504	JCT-506	Circular Pipe	430	0.005	0.382	Free Surface	0.279	42.354	2.222	114.52	0.894	0.085	0.139	0.62	1.386
CDT-823	JCT-506	JCT-528	Circular Pipe	400	0.004	0.382	Free Surface	0.245	40.293	2.677	89.303	1.15	0.07	0.123	0.656	1.311
CDT-825	JCT-508	JCT-510	Circular Pipe	426	0.007	0.382	Free Surface	0.267	35.642	2.368	106.412	0.974	0.079	0.133	0.631	1.358
CDT-827	JCT-510	JCT-512	Circular Pipe	88	0.004	0.382	Free Surface	0.277	32.701	2.245	23.186	0.907	0.084	0.138	0.622	1.381
CDT-829	JCT-512	JCT-514	Circular Pipe	280	0.005	0.382	Free Surface	0.263	32.363	2.422	68.263	1.004	0.078	0.131	0.636	1.349
CDT-831	JCT-514	JCT-516	Circular Pipe	440	0.005	0.382	Free Surface	0.265	30.963	2.392	108.59	0.988	0.079	0.132	0.633	1.354
CDT-833	JCT-516	JCT-518	Circular Pipe	380.217	0.005	0.382	Free Surface	0.257	28.767	2.498	89.85	1.047	0.075	0.128	0.642	1.337
CDT-835	JCT-518	JCT-520	Circular Pipe	385	0.005	0.382	Free Surface	0.373	26.872	1.285	182.845	0.446	0.094	0.149	0.48	1.781
CDT-837	JCT-520	JCT-522	Circular Pipe	447	0	0.382	Free Surface	0.372	25.2	1.293	211.229	0.45	0.093	0.149	0.481	1.781
CDT-839	JCT-522	JCT-524	Circular Pipe	473	0.005	0.382	Free Surface	0.245	22.747	2.372	117.744	1.021	0.051	0.121	0.582	1.632
CDT-841	JCT-524	1749	Circular Pipe	468.156	0.002	0.382	Free Surface	0.378	20.13	1.543	179.246	0.528	0.159	0.216	0.584	1.44
CDT-845	JCT-528	JCT-508	Circular Pipe	178	0.017	0.382	Free Surface	0.22	38.557	3.14	33.509	1.426	0.06	0.11	0.689	1.249
CDT_11	SR-34	JCT-490	Circular Pipe	3436.435	0.01	0.382	Free Surface	0.248	91.202	2.836	717.218	1.21	0.087	0.142	0.703	1.22
P-SR-01	SR-02	SR-01	Circular Pipe	143	0.002	0	Free Surface	0	162.98	0	0.003	0	0	0	0	0
P-SR-02	SR-01	SR-03	Circular Pipe	400	0.002	0	Free Surface	0	162.71	0	0.007	0	0	0	0	0.001
P-SR-03	SR-03	SR-04	Circular Pipe	384	0.001	0	Free Surface	0.02	162	0	2.648	0	0.002	0.04	0	0.685
P-SR-04	SR-04	SR-05	Circular Pipe	290	0.005	0.004	Free Surface	0.041	161.74	0.676	2.591	0.714	0.026	0.137	0.028	0.458
P-SR-05	SR-05	SR-06	Circular Pipe	400	0.004	0.004	Free Surface	0.044	160.243	0.601	4.018	0.608	0.029	0.067	0.027	0.332
P-SR-06	SR-06	SR-07	Circular Pipe	400	0.004	0.004	Free Surface	0.041	158.746	0.671	3.632	0.707	0.026	0.062	0.028	0.321
P-SR-07	SR-07	SR-08	Circular Pipe	400	0.009	0.004	Free Surface	0.033	157.236	0.94	2.568	1.106	0.018	0.049	0.031	0.286
P-SR-08	SR-08	SR-09	Circular Pipe	400	0.02	0.004	Free Surface	0.267	153.829	0.046	57.894	0.018	0.375	0.401	0.012	0.653
P-SR-09	SR-09	SR-10	Circular Pipe	400	0.004	0.382	Free Surface	0.417	146.506	2.568	91.137	0.758	0.659	0.626	1.072	0.645
P-SR-10	SR-10	SR-11	Circular Pipe	400	0.01	0.382	Free Surface	0.334	144.829	3.375	69.962	1.161	0.501	0.501	1.127	0.667
P-SR-11	SR-11	SR-12	Circular Pipe	400	0.01	0.382	Free Surface	0.326	140.839	3.475	67.961	1.213	0.487	0.49	1.134	0.666
P-SR-12	SR-12	SR-13	Circular Pipe	400	0.012	0.382	Free Surface	0.347	137.014	3.22	73.309	1.082	0.525	0.52	1.116	0.666
P-SR-13	SR-13	SR-14	Circular Pipe	400	0.006	0.382	Free Surface	0.399	132.379	2.708	87.175	0.826	0.625	0.599	1.081	0.654
P-SR-14	SR-14	SR-15	Circular Pipe	400	0.005	0.382	Free Surface	0.399	129.919	2.708	87.176	0.826	0.625	0.599	1.081	0.654
P-SR-15	SR-15	SR-16	Circular Pipe	400	0.006	0.382	Free Surface	0.379	127.879	2.88	82.003	0.911	0.587	0.569	1.092	0.66
P-SR-16	SR-16	SR-17	Circular Pipe	400	0.006	0.382	Free Surface	0.431	125.379	2.476	95.046	0.714	0.683	0.646	1.066	0.638

OPTION 1

Pipe Report

P-SR-17	SR-17	SR-18	Circular Pipe	400	0.004	0.382	Free Surface	0.434	122.982	2.452	96.037	0.702	0.69	0.652	1.065	0.635
P-SR-18	SR-18	SR-19	Circular Pipe	400	0.006	0.382	Free Surface	0.369	121.387	2.976	79.316	0.959	0.568	0.554	1.099	0.663
P-SR-19	SR-19	SR-20	Circular Pipe	400	0.008	0.382	Free Surface	0.353	118.851	3.144	75.098	1.043	0.538	0.53	1.11	0.665
P-SR-20	SR-20	SR-21	Circular Pipe	400	0.008	0.382	Free Surface	0.376	115.655	2.909	81.158	0.925	0.581	0.564	1.094	0.661
P-SR-21	SR-21	SR-22	Circular Pipe	400	0.006	0.382	Free Surface	0.366	112.597	3.012	78.356	0.976	0.562	0.548	1.101	0.663
P-SR-22	SR-22	SR-23	Circular Pipe	400	0.01	0.382	Free Surface	0.35	110.134	3.181	74.234	1.062	0.532	0.525	1.113	0.666
P-SR-23	SR-23	SR-24	Circular Pipe	400	0.007	0.382	Free Surface	0.37	106.366	2.965	79.653	0.953	0.57	0.555	1.098	0.662
P-SR-24	SR-24	SR-25	Circular Pipe	400	0.007	0.382	Free Surface	0.395	103.575	2.744	86.033	0.844	0.616	0.592	1.083	0.655
P-SR-25	SR-25	SR-26	Circular Pipe	400	0.005	0.382	Free Surface	0.507	101.015	2.074	111.721	0.517	0.816	0.76	1.051	0.569
P-SR-26	SR-26	SR-27	Circular Pipe	280	0.003	0.382	Free Surface	0.427	99.299	2.503	63.391	0.727	0.676	0.64	1.068	0.64
P-SR-27	SR-27	SR-28	Circular Pipe	30	0.025	0.382	Free Surface	0.34	98.144	3.3	5.362	1.122	0.513	0.51	1.122	0.666
P-SR-28	SR-28	SR-29	Circular Pipe	236	0.004	0.382	Free Surface	0.438	97.565	2.43	57.325	0.691	0.696	0.657	1.064	0.633
P-SR-29	SR-29	SR-30	Circular Pipe	400	0.004	0.382	Free Surface	0.456	96.55	2.323	101.635	0.64	0.728	0.683	1.058	0.62
P-SR-30	SR-30	SR-31	Circular Pipe	400	0.004	0.382	Free Surface	0.445	95.061	2.384	99.027	0.669	0.71	0.668	1.061	0.628
P-SR-31	SR-31	SR-32	Circular Pipe	70	0.004	0.382	Free Surface	0.442	93.529	2.406	17.175	0.679	0.703	0.662	1.062	0.63
P-SR-32	SR-32	SR-33	Circular Pipe	300	0.004	0.382	Free Surface	0.486	93.254	2.166	81.625	0.563	0.781	0.729	1.053	0.592
P-SR-33	SR-33	SR-34	Circular Pipe	207	0.004	0.382	Free Surface	0.375	92.218	2.919	41.3	0.93	0.579	0.562	1.095	0.661

OPTION 2

Manhole Report

ID	Invert Elevation (ft)	Rim Elevation (ft)	Depth (ft)	Head (ft)	Head Class	Pressure (psi)	Volume (ft3)	Lateral Inflow (mgd)	Total Inflow (mgd)	Flooding (mgd)
1749	19.01	33.3	0.431	19.441	Below Link Crown	0.187	0	0.021	0.475	0
3328	159.61	170	0	159.61	Below Link Crown	0	0	0	0	0
3329	153.01	163	0.369	153.379	Below Link Crown	0.16	0	1.168	1.168	0
3330	144.79	156.5	0.454	145.244	Below Link Crown	0.197	0	0	1.168	0
3331	140.41	151	0.393	140.803	Below Link Crown	0.17	0	0	1.168	0
3332	133.81	144.4	0.399	134.209	Below Link Crown	0.173	0	0	1.168	0
3333	127.63	138.6	0.447	128.077	Below Link Crown	0.194	0	0	1.168	0
3334	123.67	134	0.416	124.086	Below Link Crown	0.18	0	0	1.168	0
3335	118.69	129.3	0.407	119.097	Below Link Crown	0.177	0	0	1.168	0
3336	115.09	125.6	0.388	115.478	Below Link Crown	0.168	0	0	1.168	0
3337	110.7	121.3	0.405	111.105	Below Link Crown	0.175	0	0	1.168	0
3338	105.9	116.9	0.408	106.308	Below Link Crown	0.177	0	0	1.168	0
3339	100.7	111.7	0.378	101.078	Below Link Crown	0.164	0	0	1.168	0
3340	94.8	107	0.509	95.309	Below Link Crown	0.221	0	0.495	1.663	0
3341	92.18	103.6	0.411	92.591	Below Link Crown	0.178	0	0	1.663	0
3342	87.58	99.5	0.497	88.077	Below Link Crown	0.215	0	0	1.663	0
3343	84.9	96	0.527	85.427	Below Link Crown	0.228	0	0	1.663	0
3344	81.52	92.5	0.645	82.165	Below Link Crown	0.28	0	0.78	2.443	0
3345	78.7	90.3	0.739	79.439	Below Link Crown	0.32	0	0	2.443	0
3346	76.94	87.9	0.621	77.561	Below Link Crown	0.269	0	0	2.443	0
3347	75.17	86.3	0.592	75.762	Below Link Crown	0.257	0	0	2.443	0
3348	69.9	80.9	0.565	70.465	Below Link Crown	0.245	0	0	2.443	0
3349	63.4	74.8	0.565	63.965	Below Link Crown	0.245	0	0	2.443	0
3350	56.84	68.3	0.606	57.446	Below Link Crown	0.262	0	0	2.443	0
3351	51.6	64.2	0.644	52.244	Below Link Crown	0.279	0	0	2.443	0
3352	47.6	58.6	0.86	48.46	Below Link Crown	0.373	0	0	2.443	0
3353	44.3	56	0.765	45.065	Below Link Crown	0.331	0	0	2.443	0
3354	42.15	54	0.912	43.062	Below Link Crown	0.395	0	0	2.443	0
3355	39	50	0.778	39.778	Below Link Crown	0.337	0	0	2.443	0
3356	34.71	46	0.881	35.591	Below Link Crown	0.382	0	0	2.443	0
3357	31.6	42.7	0.788	32.388	Below Link Crown	0.341	0	0	2.443	0
3358	27.22	38.2	0.682	27.902	Below Link Crown	0.295	0	0	2.443	0
3359	20.02	34	0.801	20.821	Below Link Crown	0.347	0	0	2.443	0
3360	18.72	33	1.211	19.931	Below Link Crown	0.525	0	0	2.443	0
3361	18.32	31.1	1.111	19.431	Below Link Crown	0.482	0	0	2.443	0
3362	17.5	30.5	0.975	18.475	Below Link Crown	0.423	0	0	2.917	0
3363	16.5	28	0.831	17.331	Below Link Crown	0.36	0	0	2.917	0
3364	13.95	26.7	0.721	14.671	Below Link Crown	0.312	0	0	2.917	0
3365	10.55	25.4	0.558	11.108	Below Link Crown	0.242	0	0	2.917	0
3367	3.92	24.2	0.54	4.46	Below Link Crown	0.234	0	0	2.917	0
3368	0.64	25.2	0.947	1.587	Below Link Crown	0.41	0	0	2.917	0
3369	0.08	20.6	1.086	1.166	Below Link Crown	0.471	0	0	2.917	0
3370	-0.4	20	0.995	0.595	Below Link Crown	0.431	0	0	2.917	0
3371	-1.02	18.4	1.034	0.014	Below Link Crown	0.448	0	0	2.917	0
3372	-1.64	15.4	0.908	-0.732	Below Link Crown	0.394	0	0	2.917	0
3373	-2.45	16	1.017	-1.433	Below Link Crown	0.441	0	0	2.917	0
3374	-3.02	13.1	0.907	-2.113	Below Link Crown	0.393	0	0	2.917	0
3375	-3.82	14	1.064	-2.756	Below Link Crown	0.461	0	0	2.917	0
3376	-4	13	0.948	-3.052	Below Link Crown	0.411	0	0	2.917	0
3377	-4.68	13	0.933	-3.747	Below Link Crown	0.404	0	0	2.917	0
3378	-5.37	12.4	1.073	-4.297	Below Link Crown	0.465	0	0.609	3.526	0
3379	-6.08	13	0.798	-5.282	Below Link Crown	0.346	0	0	3.526	0
3381	-7.93	13	0.901	-7.029	Below Link Crown	0.39	0	0	3.526	0
3383	-8.55	13.8	0.835	-7.715	Below Link Crown	0.362	0	0	3.526	0
3384	-9	13.4	0.962	-8.038	Below Link Crown	0.417	0	0	3.526	0
3446	18.169	31	0.431	18.6	Below Link Crown	0.187	0	0	0.475	0
JCT-372	-9.26	13.1	0.283	-8.977	Below Link Crown	0.123	0	0	3.526	0
JCT-374	-9.03	13.1	0.962	-8.068	Below Link Crown	0.417	0	0	3.526	0
JCT-490	57.17	79.43	0.287	57.457	Below Link Crown	0.124	0	0	0.454	0
JCT-492	55.49	76.76	0.289	55.779	Below Link Crown	0.125	0	0	0.454	0
JCT-494	52.9	73.1	0.285	53.186	Below Link Crown	0.124	0	0	0.454	0
JCT-496	49.9	69.9	0.29	50.19	Below Link Crown	0.126	0	0	0.454	0
JCT-498	46.98	66.08	0.276	47.256	Below Link Crown	0.12	0	0	0.454	0
JCT-500	45.25	64.28	0.286	45.536	Below Link Crown	0.124	0	0	0.454	0
JCT-502	42.66	61.13	0.285	42.945	Below Link Crown	0.123	0	0	0.454	0
JCT-504	42.09	60.72	0.287	42.377	Below Link Crown	0.125	0	0	0.454	0

JCT-506	40	59	0.319	40.319	Below Link Crown	0.138	0	0	0.454	0
JCT-508	35.4	55.7	0.263	35.663	Below Link Crown	0.114	0	0	0.454	0
JCT-510	32.41	52.3	0.316	32.726	Below Link Crown	0.137	0	0	0.454	0
JCT-512	32.1	52.3	0.285	32.385	Below Link Crown	0.124	0	0	0.454	0
JCT-514	30.7	48.8	0.285	30.986	Below Link Crown	0.124	0	0	0.454	0
JCT-516	28.5	46	0.291	28.791	Below Link Crown	0.126	0	0	0.454	0
JCT-518	26.625	44	0.268	26.893	Below Link Crown	0.116	0	0	0.454	0
JCT-520	24.7	42.4	0.538	25.238	Below Link Crown	0.233	0	0	0.454	0
JCT-522	22.5	38	0.268	22.768	Below Link Crown	0.116	0	0	0.454	0
JCT-524	19.77	36.7	0.392	20.162	Below Link Crown	0.17	0	0	0.454	0
JCT-528	38.36	58.96	0.214	38.574	Below Link Crown	0.093	0	0	0.454	0
SR-01	162.71	202.7	0	162.71	Below Link Invert	0	0	0	0	0
SR-02	162.98	204	0	162.98	Below Link Invert	0	0	0	0	0
SR-03	162	188.8	0	162	Below Link Invert	0	0	0	0	0
SR-04	161.6	178.3	0	161.6	Below Link Invert	0	0	0	0	0
SR-05	160.2	171	0	160.2	Below Link Invert	0	0	0	0	0
SR-06	158.7	167.2	0.19	158.89	Below Link Crown	0.082	0	0.076	0.076	0
SR-07	157.2	163.9	0.153	157.353	Below Link Crown	0.066	0	0	0.076	0
SR-08	153.8	159.8	0.119	153.919	Below Link Crown	0.052	0	0	0.076	0
SR-09	146	154	0.601	146.601	Below Link Crown	0.261	0	0.378	0.454	0
SR-10	144.5	151	0.365	144.865	Below Link Crown	0.158	0	0	0.454	0
SR-11	140.5	146.5	0.377	140.877	Below Link Crown	0.163	0	0	0.454	0
SR-12	136.7	145	0.347	137.047	Below Link Crown	0.151	0	0	0.454	0
SR-13	132	138	0.425	132.425	Below Link Crown	0.184	0	0	0.454	0
SR-14	129.5	138	0.476	129.976	Below Link Crown	0.206	0	0	0.454	0
SR-15	127.5	133.5	0.425	127.925	Below Link Crown	0.184	0	0	0.454	0
SR-16	125	133	0.425	125.425	Below Link Crown	0.184	0	0	0.454	0
SR-17	122.5	130.2	0.562	123.062	Below Link Crown	0.244	0	0	0.454	0
SR-18	121	128.2	0.436	121.436	Below Link Crown	0.189	0	0	0.454	0
SR-19	118.5	125.7	0.391	118.891	Below Link Crown	0.17	0	0	0.454	0
SR-20	115.3	122.3	0.395	115.695	Below Link Crown	0.171	0	0	0.454	0
SR-21	112.2	119	0.449	112.649	Below Link Crown	0.195	0	0	0.454	0
SR-22	109.8	116.2	0.371	110.171	Below Link Crown	0.161	0	0	0.454	0
SR-23	106	112.9	0.409	106.409	Below Link Crown	0.177	0	0	0.454	0
SR-24	103.2	109.2	0.419	103.619	Below Link Crown	0.182	0	0	0.454	0
SR-25	100.6	106.6	0.469	101.069	Below Link Crown	0.203	0	0	0.454	0
SR-26	98.7	104.7	0.883	99.583	Below Maximum Depth	0.382	0	0	0.454	0
SR-27	97.89	104.6	0.28	98.17	Below Link Crown	0.121	0	0	0.454	0
SR-28	97.14	104.2	0.483	97.623	Below Link Crown	0.209	0	0	0.454	0
SR-29	96.1	102.5	0.518	96.618	Below Link Crown	0.224	0	0	0.454	0
SR-30	94.6	104.1	0.533	95.133	Below Link Crown	0.231	0	0	0.454	0
SR-31	93.1	105	0.489	93.589	Below Link Crown	0.212	0	0	0.454	0
SR-32	92.8	105.1	0.523	93.323	Below Link Crown	0.227	0	0	0.454	0
SR-33	91.7	105.5	0.644	92.344	Below Link Crown	0.279	0	0	0.454	0
SR-34	90.97	104.8	0.252	91.222	Below Link Crown	0.109	0	0	0.454	0

OPTION 2

Pipe Report

ID	From ID	To ID	Type	Length (ft)	Slope	Flow (mgd)	Flow Class	Depth (ft)	HGL (ft)	Velocity (ft/s)	Flow Volume (ft3)	Froude Number	Capacity d/D	Surcharged d/D	Velocity*Depth (ft2/second)	Top Width (ft)
20800	SR-04	3328	Circular Pipe	526.708	0.004	0	Free Surface	0	161.6	0	0.01	0	0	0	0	0.001
20801	3384	JCT-374	Circular Pipe	16.676	0.002	3.526	Free Surface	0.962	-8.038	3.134	29.03	0.653	0.355	0.385	3.015	2.432
789	1749	3446	Circular Pipe	692.036	0.001	0.475	Free Surface	0.431	19.441	1.595	318.764	0.509	0.192	0.246	0.688	1.508
CDT-165	3328	3329	Circular Pipe	601.616	0.011	0	Free Surface	0.185	159.61	0	111.223	0	0.056	0.106	0	1.074
CDT-167	3329	3330	Circular Pipe	601.588	0.014	1.168	Free Surface	0.412	153.379	4.188	260.31	1.369	0.179	0.235	1.724	1.484
CDT-169	3330	3331	Circular Pipe	601.839	0.006	1.168	Free Surface	0.454	145.244	3.646	298.283	1.131	0.206	0.242	1.656	1.499
CDT-171	3331	3332	Circular Pipe	618.968	0.011	1.168	Free Surface	0.396	140.803	4.425	252.788	1.476	0.17	0.226	1.752	1.464
CDT-173	3332	3333	Circular Pipe	619.05	0.01	1.168	Free Surface	0.423	134.209	4.029	278.013	1.298	0.186	0.242	1.705	1.498
CDT-175	3333	3334	Circular Pipe	590.048	0.007	1.168	Free Surface	0.432	128.077	3.917	272.256	1.248	0.192	0.247	1.69	1.508
CDT-177	3334	3335	Circular Pipe	578.451	0.009	1.168	Free Surface	0.412	124.086	4.188	249.621	1.369	0.179	0.235	1.724	1.484
CDT-179	3335	3336	Circular Pipe	376.171	0.01	1.168	Free Surface	0.398	119.097	4.394	154.704	1.462	0.171	0.227	1.748	1.466
CDT-181	3336	3337	Circular Pipe	393.729	0.011	1.168	Free Surface	0.396	115.478	4.417	161.095	1.473	0.17	0.227	1.751	1.465
CDT-183	3337	3338	Circular Pipe	507.094	0.009	1.168	Free Surface	0.406	111.105	4.265	214.843	1.404	0.176	0.232	1.733	1.477
CDT-185	3338	3339	Circular Pipe	535.714	0.01	1.168	Free Surface	0.393	106.308	4.473	216.507	1.499	0.168	0.225	1.758	1.46
CDT-187	3339	3340	Circular Pipe	473.52	0.012	1.168	Free Surface	0.444	101.078	3.767	228.292	1.183	0.199	0.253	1.671	1.522
CDT-189	3340	3341	Circular Pipe	282.02	0.009	1.663	Free Surface	0.46	95.309	5.09	142.869	1.566	0.21	0.263	2.343	1.541
CDT-191	3341	3342	Circular Pipe	256.156	0.018	1.663	Free Surface	0.454	92.591	5.192	127.165	1.61	0.206	0.259	2.357	1.534
CDT-193	3342	3343	Circular Pipe	302.679	0.009	1.663	Free Surface	0.497	88.077	4.577	170.113	1.351	0.234	0.292	2.274	1.592
CDT-195	3343	3344	Circular Pipe	497.602	0.007	1.663	Free Surface	0.586	85.427	3.643	352.021	0.982	0.294	0.335	2.134	1.651
CDT-197	3344	3345	Circular Pipe	416.524	0.007	2.443	Free Surface	0.692	82.165	4.27	368.901	1.046	0.368	0.395	2.955	1.711
CDT-199	3345	3346	Circular Pipe	382.018	0.005	2.443	Free Surface	0.68	79.439	4.37	330.712	1.082	0.36	0.389	2.973	1.706
CDT-201	3346	3347	Circular Pipe	217.189	0.008	2.443	Free Surface	0.607	77.561	5.101	160.926	1.348	0.308	0.347	3.095	1.665
CDT-203	3347	3348	Circular Pipe	543.251	0.01	2.443	Free Surface	0.579	75.762	5.442	377.296	1.476	0.289	0.331	3.149	1.646
CDT-205	3348	3349	Circular Pipe	582.629	0.011	2.443	Free Surface	0.565	70.465	5.621	391.73	1.545	0.28	0.323	3.178	1.637
CDT-207	3349	3350	Circular Pipe	587.433	0.011	2.443	Free Surface	0.585	63.965	5.357	414.503	1.444	0.293	0.335	3.136	1.651
CDT-209	3350	3351	Circular Pipe	610.56	0.009	2.443	Free Surface	0.625	57.446	4.9	470.919	1.273	0.321	0.357	3.062	1.677
CDT-211	3351	3352	Circular Pipe	587.234	0.007	2.443	Free Surface	0.752	52.244	3.824	581.338	0.892	0.411	0.43	2.876	1.732
CDT-213	3352	3353	Circular Pipe	569.267	0.006	2.443	Free Surface	0.813	48.46	3.457	622.487	0.77	0.455	0.464	2.809	1.745
CDT-215	3353	3354	Circular Pipe	276.811	0.008	2.443	Free Surface	0.839	45.065	3.318	315.409	0.724	0.474	0.479	2.783	1.748
CDT-217	3354	3355	Circular Pipe	631.227	0.005	2.443	Free Surface	0.845	43.062	3.284	726.55	0.713	0.478	0.483	2.776	1.749
CDT-219	3355	3356	Circular Pipe	587.32	0.007	2.443	Free Surface	0.83	39.778	3.364	659.85	0.739	0.467	0.474	2.791	1.747
CDT-221	3356	3357	Circular Pipe	582.198	0.005	2.443	Free Surface	0.834	35.591	3.34	658.787	0.732	0.47	0.477	2.787	1.748
CDT-223	3357	3358	Circular Pipe	562.08	0.008	2.443	Free Surface	0.735	32.388	3.942	538.812	0.933	0.399	0.42	2.896	1.727
CDT-225	3358	3359	Circular Pipe	610.56	0.012	2.443	Free Surface	0.741	27.902	3.897	592.218	0.917	0.403	0.424	2.888	1.729
CDT-227	3359	3360	Circular Pipe	196.673	0.007	2.443	Free Surface	1.006	20.821	2.642	280.068	0.512	0.595	0.575	2.657	1.73
CDT-229	3360	3361	Circular Pipe	241.706	0.002	2.443	Free Surface	1.161	19.931	2.231	409.24	0.388	0.704	0.663	2.59	1.654
CDT-231	3361	3362	Circular Pipe	336.596	0.002	2.443	Free Surface	1.043	19.431	2.528	503.003	0.477	0.622	0.596	2.637	1.717
CDT-233	3362	3363	Circular Pipe	395.805	0.003	2.917	Free Surface	0.903	18.475	3.606	495.37	0.751	0.52	0.516	3.256	1.749
CDT-235	3363	3364	Circular Pipe	602.755	0.004	2.917	Free Surface	0.776	17.331	4.387	620.599	1.005	0.428	0.443	3.403	1.739
CDT-237	3364	3365	Circular Pipe	771.929	0.004	2.917	Free Surface	0.639	14.671	4.555	767.789	1.191	0.202	0.256	2.912	2.181
CDT-243	3367	3368	Circular Pipe	283.971	0.012	2.917	Free Surface	0.744	4.46	3.687	352.859	0.888	0.249	0.297	2.742	2.285
CDT-245	3368	3369	Circular Pipe	429.497	0.001	2.917	Free Surface	1.017	1.587	2.408	805.448	0.486	0.382	0.407	2.448	2.456
CDT-247	3369	3370	Circular Pipe	598.493	0.001	2.917	Free Surface	1.041	1.166	2.333	1157.806	0.464	0.394	0.416	2.428	2.464
CDT-249	3370	3371	Circular Pipe	571.847	0.001	2.917	Free Surface	1.015	0.595	2.413	1069.854	0.487	0.381	0.406	2.449	2.455
CDT-251	3371	3372	Circular Pipe	604.39	0.001	2.917	Free Surface	0.971	0.014	2.559	1066.734	0.53	0.359	0.389	2.486	2.437
CDT-253	3372	3373	Circular Pipe	531.985	0.002	2.917	Free Surface	0.963	-0.732	2.591	927.482	0.539	0.355	0.385	2.494	2.433
CDT-255	3373	3374	Circular Pipe	532.74	0.001	2.917	Free Surface	0.962	-1.433	2.592	928.318	0.54	0.355	0.385	2.494	2.432
CDT-257	3374	3375	Circular Pipe	523.809	0.002	2.917	Free Surface	0.986	-2.113	2.508	943.375	0.515	0.367	0.394	2.473	2.443
CDT-259	3375	3376	Circular Pipe	221.479	0.001	2.917	Free Surface	1.006	-2.756	2.441	409.786	0.495	0.377	0.403	2.456	2.452
CDT-261	3376	3377	Circular Pipe	446.757	0.002	2.917	Free Surface	0.941	-3.052	2.671	754.957	0.564	0.344	0.376	2.513	2.422
CDT-263	3377	3378	Circular Pipe	432.756	0.002	2.917	Free Surface	1.003	-3.747	2.45	797.639	0.498	0.375	0.401	2.459	2.451
CDT-265	3378	3379	Circular Pipe	491.989	0.001	3.526	Free Surface	0.936	-4.297	3.253	827.531	0.689	0.342	0.374	3.044	2.419
CDT-275	3383	3384	Circular Pipe	146.936	0.003	3.526	Free Surface	0.898	-7.715	3.438	233.35	0.745	0.323	0.359	3.088	2.399
CDT-293	3446	3362	Circular Pipe	550.75	0.001	0.475	Free Surface	0.703	18.6	0.813	506.318	0.197	0.376	0.402	0.571	1.716
CDT-673	JCT-374	JCT-372	Circular Pipe	22.222	0.01	3.526	Free Surface	0.622	-8.068	5.717	22.754	1.516	0.194	0.249	3.558	2.161
CDT-675	3381	3383	Circular Pipe	257.723	0.002	3.526	Free Surface	0.868	-7.029	3.604	390.221	0.796	0.308	0.347	3.127	2.38
CDT-677	3379	3381	Circular Pipe	509.069	0.004	3.526	Free Surface	0.849	-5.282	3.711	748.961	0.83	0.3	0.34	3.152	2.368
CDT-679	3365	3367	Circular Pipe	636.29	0.01	2.917	Free Surface	0.549	11.108	5.65	508.493	1.603	0.163	0.22	3.103	2.07
CDT-807	JCT-490	JCT-492	Circular Pipe	344	0.005	0.454	Free Surface	0.288	57.457	2.519	95.833	0.997	0.089	0.144	0.725	1.404
CDT-809	JCT-492	JCT-494	Circular Pipe	539	0.005	0.454	Free Surface	0.287	55.779	2.53	149.539	1.002	0.088	0.144	0.726	1.402
CDT-811	JCT-494	JCT-496	Circular Pipe	600	0.005	0.454	Free Surface	0.288	53.185	2.523	166.915	0.998	0.089	0.144	0.726	1.403
CDT-813	JCT-496	JCT-498	Circular Pipe	600	0.005	0.454	Free Surface	0.283	50.19	2.587	162.889	1.033	0.086	0.141	0.732	1.394
CDT-815	JCT-498	JCT-500	Circular Pipe	300	0.006	0.454	Free Surface	0.281	47.256	2.614	80.606	1.048	0.085	0.14	0.734	1.39
CDT-817	JCT-500	JCT-502	Circular Pipe	520	0.005	0.454	Free Surface	0.285	45.536	2.553	142.983	1.015	0.088	0.143	0.729	1.399
CDT-819	JCT-502	JCT-504	Circular Pipe	113	0.005	0.454	Free Surface	0.286	42.945	2.543	31.191	1.009	0.088	0.143	0.728	1.4
CDT-821	JCT-504	JCT-506	Circular Pipe	430	0.005	0.454	Free Surface	0.303	42.377	2.335	129.255	0.899	0.096	0.152	0.708	1.434
CDT-823	JCT-506	JCT-528	Circular Pipe	400	0.004	0.454	Free Surface	0.266	40.319	2.818	100.825	1.16	0.079	0.133	0.751	1.358
CDT-825	JCT-508	JCT-510	Circular Pipe	426	0.007	0.454	Free Surface	0.29	35.663	2.498	120.022	0.985	0.089	0.145	0.723	1.407
CDT-827	JCT-510	JCT-512	Circular Pipe	88	0.004	0.454	Free Surface	0.301	32.726	2.362	26.144	0.913	0.095	0.15	0.711	1.429
CDT-829	JCT-512	JCT-514	Circular Pipe	280	0.005	0.454	Free Surface	0.285	32.385	2.552	77.021	1.014	0.088	0.143	0.728	1.399
CDT-831	JCT-514	JCT-516	Circular Pipe	440	0.005	0.454	Free Surface	0.288	30.985	2.518	122.621	0.996	0.089	0.144	0.725	1.404
CDT-833	JCT-516	JCT-518	Circular Pipe	380.217	0.005	0.454	Free Surface	0.279	28.791	2.637	101.382	1.061	0.085	0.14	0.736	1.386
CDT-835	JCT-518	JCT-520	Circular Pipe	385	0.005	0.454	Free Surface	0.403	26.893	1.37	203.823	0.457	0.104	0.161	0.552	1.838
CDT-837	JCT-520	JCT-522	Circular Pipe	447	0	0.454	Free Surface	0.402	25.238	1.373	236.344	0.458	0.104	0.161	0.552	1.838
CDT-839	JCT-522	JCT-524	Circular Pipe	473	0.005	0.454	Free Surface	0.267	22.768	2.483	133.707	1.022	0.058	0.132	0.664	1.69
CDT-841	JCT-524	1749	Circular Pipe	468.156	0.002	0.454	Free Surface	0.411	20.162	1.628	201.983	0.532	0.179	0.235	0.67	1.484
CDT-845	JCT-528	JCT-508	Circular Pipe	178	0.017	0.454	Free Surface	0.238	38.574	3.318	37.839	1.447	0.067	0.119	0.791	1.296
CDT_11	SR-34	JCT-490	Circular Pipe	3436.435	0.01	0.454	Free Surface	0.27	91.222	2.983	809.333	1.217	0.098	0.154	0.804	1.263
P-SR-01	SR-02	SR-01	Circular Pipe	143	0.002	0	Free Surface	0	162.98	0	0.003	0	0	0	0	0
P-SR-02	SR-01	SR-03	Circular Pipe	400	0.002	0	Free Surface	0	162.71	0	0.007	0	0	0	0	0
P-SR-03	SR-03	SR-04	Circular Pipe	384	0.001	0	Free Surface	0	162	0	0.007	0	0	0	0	0
P-SR-04	SR-04	SR-05	Circular Pipe	290	0.005	0	Free Surface	0	161.6	0	0.002	0	0	0	0	0
P-SR-05	SR-05	SR-06	Circular Pipe	400	0.004	0	Free Surface	0.095	160.2	0	16.396	0	0.087	0.142	0	0.466
P-SR-06	SR-06	SR-07	Circular Pipe	400	0.004	0.076	Free Surface	0.171	158.89	1.657	28.441	0.837	0.203	0.257	0.284	0.582
P-SR-07	SR-07	SR-08	Circular Pipe	400	0.009	0.076	Free Surface	0.136	157.353	2.303	20.503	1.316	0.146	0.204	0.313	0.537
P-SR-08	SR-08	SR-09	Circular Pipe	400	0.02	0.076	Free Surface	0.36	153.919	0.611	74.729	0.2	0.551	0.54	0.22	0.664
P-SR-09	SR-09	SR-10	Circular Pipe	400	0.004	0.454	Free Surface	0.483	146.601	2.591	105.375	0.677	0.776	0.725	1.252	0.596
P-SR-10	SR-10	SR-11	Circular Pipe	400	0.01	0.454	Free Surface	0.371	144.865	3.519	79.77	1.13	0.571	0.556	1.305	0.662
P-SR-11	SR-11	SR-12	Circular Pipe	400	0.01	0.454	Free Surface	0.362	140.877	3.624	77.454	1.183	0.555	0.543	1.312	0.664
P-SR-12	SR-12	SR-13	Circular Pipe	400	0.012	0.454	Free Surface	0.386	137.047	3.349	83.738	1.046	0.6	0.579	1.293	0.658
P-SR-13	SR-13	SR-14	Circular Pipe	400	0.006	0.454	Free Surface	0.45	132.425	2.798	100.237	0.778	0.719	0.675	1.26	0.624
P-SR-14	SR-14	SR-15	Circular Pipe	400	0.005	0.454	Free Surface	0.45	129.976	2.798	100.238	0.778	0.719	0.675	1.26	0.624
P-SR-15	SR-15	SR-16	Circular Pipe	400	0.006	0.454	Free Surface	0.425	127.925	2.99	93.903	0.871	0.673	0.637	1.27	0.641
P-SR-16	SR-16	SR-17	Circular Pipe	400	0.006	0.454	Free Surface	0.493	125.425	2.534	109.754	0.649	0.794	0.74	1.25	0.585

OPTION 2

Pipe Report

P-SR-17	SR-17	SR-18	Circular Pipe	400	0.004	0.454	Free Surface	0.499	123.062	2.506	111.112	0.635	0.802	0.748	1.25	0.579
P-SR-18	SR-18	SR-19	Circular Pipe	400	0.006	0.454	Free Surface	0.413	121.436	3.086	90.908	0.918	0.651	0.62	1.276	0.647
P-SR-19	SR-19	SR-20	Circular Pipe	400	0.008	0.454	Free Surface	0.393	118.891	3.275	85.73	1.009	0.614	0.59	1.288	0.656
P-SR-20	SR-20	SR-21	Circular Pipe	400	0.008	0.454	Free Surface	0.422	115.695	3.01	93.194	0.88	0.668	0.634	1.272	0.642
P-SR-21	SR-21	SR-22	Circular Pipe	400	0.006	0.454	Free Surface	0.41	112.649	3.117	89.94	0.932	0.645	0.615	1.278	0.649
P-SR-22	SR-22	SR-23	Circular Pipe	400	0.01	0.454	Free Surface	0.39	110.171	3.311	84.773	1.027	0.607	0.585	1.291	0.657
P-SR-23	SR-23	SR-24	Circular Pipe	400	0.007	0.454	Free Surface	0.414	106.409	3.081	91.127	0.915	0.653	0.621	1.276	0.647
P-SR-24	SR-24	SR-25	Circular Pipe	400	0.007	0.454	Free Surface	0.444	103.619	2.841	98.725	0.799	0.708	0.666	1.262	0.629
P-SR-25	SR-25	SR-26	Circular Pipe	400	0.005	0.454	Free Surface	0.568	101.069	2.216	122.308	0.477	0.908	1.014	1.258	0.261
P-SR-26	SR-26	SR-27	Circular Pipe	280	0.003	0.454	Free Surface	0.473	99.583	2.65	68.313	0.706	0.759	0.872	1.254	0.445
P-SR-27	SR-27	SR-28	Circular Pipe	30	0.025	0.454	Free Surface	0.381	98.17	3.399	6.149	1.071	0.592	0.572	1.297	0.66
P-SR-28	SR-28	SR-29	Circular Pipe	236	0.004	0.454	Free Surface	0.501	97.623	2.497	66.312	0.63	0.805	0.751	1.25	0.576
P-SR-29	SR-29	SR-30	Circular Pipe	400	0.004	0.454	Free Surface	0.526	96.618	2.378	118.043	0.569	0.845	0.788	1.25	0.544
P-SR-30	SR-30	SR-31	Circular Pipe	400	0.004	0.454	Free Surface	0.511	95.133	2.444	114.759	0.603	0.823	0.767	1.249	0.564
P-SR-31	SR-31	SR-32	Circular Pipe	70	0.004	0.454	Free Surface	0.506	93.589	2.468	19.897	0.616	0.815	0.759	1.249	0.57
P-SR-32	SR-32	SR-33	Circular Pipe	300	0.004	0.454	Free Surface	0.584	93.323	2.166	95.897	0.445	0.928	0.876	1.264	0.44
P-SR-33	SR-33	SR-34	Circular Pipe	207	0.004	0.454	Free Surface	0.448	92.344	2.814	48.247	0.785	0.715	0.672	1.261	0.626

APPENDIX J

Stormwater Quality Control Plan

RECEIVED
January 18, 2022
City of Tracy
Development Services

SCHULTE RD. PARKING LOT

16286 W. Schulte Road
Tracy, CA 95377

STORMWATER QUALITY CONTROL PLAN (SWQCP)

Prepared For:

PANATTONI DEVELOPMENT COMPANY, INC.
8775 Folsom Blvd.
Sacramento, CA 95826
Contact: Abbie Wertheim
(916) 379-1109

Prepared By:

SIEGFRIED

3428 Brookside Road
Stockton, CA 95219
(209) 943-2021

Date Prepared: January 14, 2022

I. Attachments

Attachment 1 – Bioretention Sizing Worksheet

Attachment 2 – DMA Exhibits

ATTACHMENT 1

BIORETENTION SIZING WORKSHEET

SIEGFRIED
3244 Brookside Road, Suite 100
Stockton, CA 95219
209.943.2021 Fax: 209.942.0214

Job Number: 20174
Project Name: Schulte Rd. Parking Lot
Workbook Name: Bioretention Area SQDV Calculation
Sheet Name: Post-Site
Date: 1/14/2022
Author: ARM

Post-Site

Site Parameters

Mean Annual Runoff-Producing Rainfall Depth (P_6):	0.33	in
Regression Coefficient (a):	1.963	
Site Design Measure Credits:	0.0	ft^3
Maximum Drawdown Time:	48	hr

Bioretention Area Properties

Bioretention Planting Zone Area:	10,000.0	ft^2
Open Space Initial Area:	238,365.0	ft^2
Ponding Depth:	12.0	in
=	1.000	ft
Planting Media Layer Depth:	1.50	ft
Planting Media Layer Porosity:	0.25	
Planting Media Infiltration Rate:	0.50	in/hr
Gravel Layer Depth:	1.00	ft
Gravel Layer Porosity:	0.40	
Gravel Layer Infiltration Rate:	1.00	in/hr
Total Infiltration Rate:	0.63	in/hr

$$f_{design,eq} = \frac{\sum d_i}{\sum\left(\frac{d_i}{f_{s,i}}\right)} = \frac{d_{pz} + d_{gl}}{\frac{d_{pz}}{f_{pz}} + \frac{d_{gl}}{f_{gl}}}$$

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3244 Brookside Road, Suite 100
Stockton, CA 95219
209.943.2021 Fax: 209.942.0214

Job Number: 20174
Project Name: Schulte Rd. Parking Lot
Workbook Name: Bioretention Area SQDV Calculation
Sheet Name: Post-Site
Date: 1/14/2022
Author: ARM

Imperviousness Calculation

Site Element	Element Area (ft^2)	% Imperviousness	Weighting Factor	Weighted % Imperviousness
Landscape	228,365	25%	0.3542	8.86%
Concrete/AC	405,692	95%	0.6293	59.78%
Roof	636	95%	0.0010	0.09%
Bioretention	10,000	100%	0.0155	1.55%
Total	644,693			70.28%

Runoff Coefficient:	0.497		$C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$
Unit Stormwater Volume:	0.322	in	$P_0 = (a \times C) \times P_6$
SDV:	17,281.4	ft^3	$SDV = A \times \frac{P_0}{12}$
Adjusted SDV:	17,281.4	ft^3	
Bottom Surface Area Required:	9,736.0	ft^2	$A_s = \frac{SDV_{adj}}{d_{pz} + (\eta_{pm} \times d_{pm}) + (\eta_{gl} \times d_{gl})}$
Bottom Surface Area Required - Planting Zone Area:	-264.0	ft^2	
Infiltration Time Check (Good if Negative) (ft):	-0.73		$d_{pz} + (\eta_{pm} \times d_{pm}) + (\eta_{gl} \times d_{gl}) \leq \frac{f_{design}}{12} \times t_{\max}$

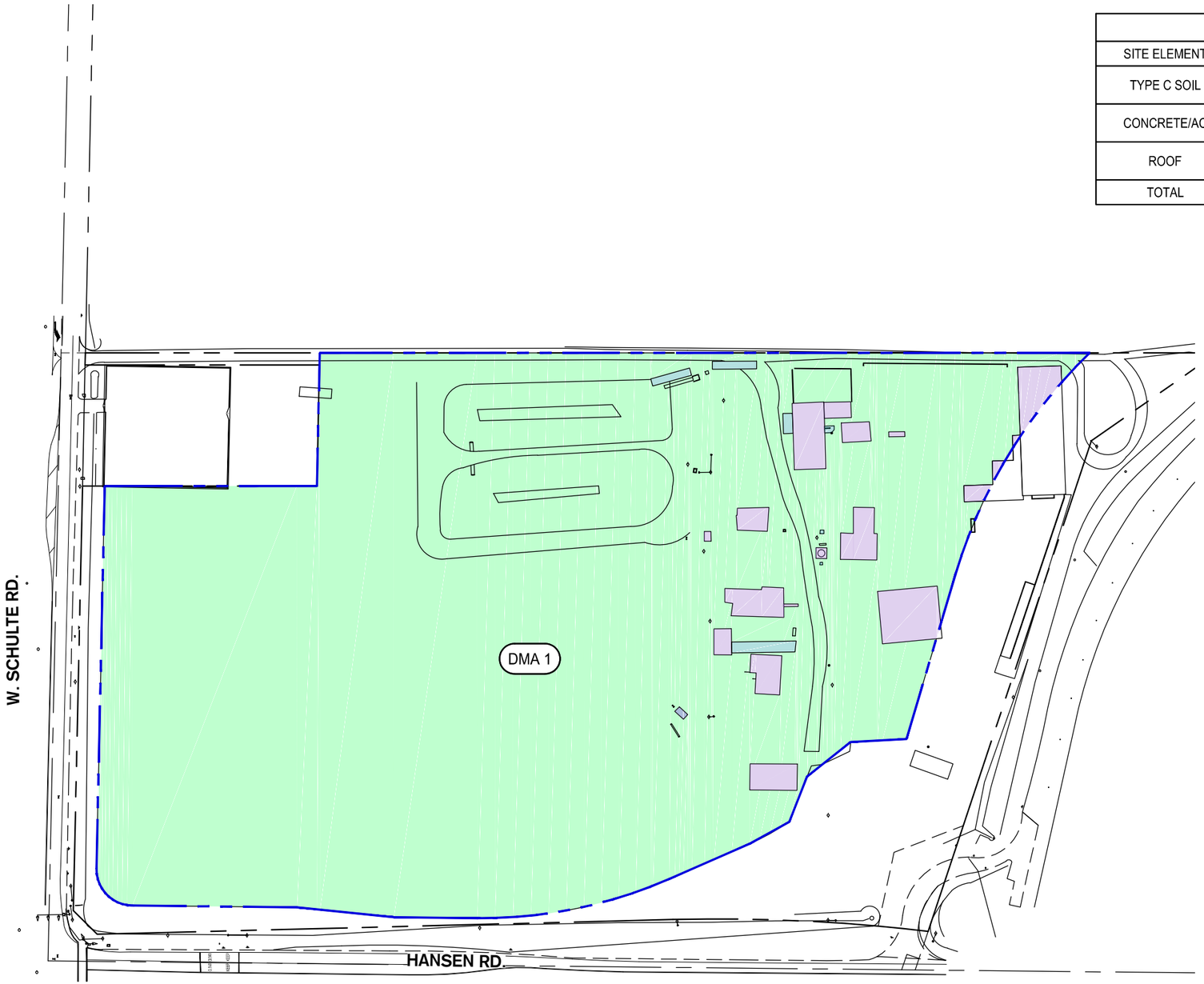
Stormwater Volume Managed by Bioretention: 17,750.0 ft^3

$$SDV_{design} = A_{design} \times [d_{pz} + (\eta_{pz} \times d_{pm}) + (\eta_{gl} \times d_{gl})]$$

ATTACHMENT 2

DMA EXHIBITS

PRE-PROJECT RUNOFF COEFFICIENT				
SITE ELEMENT	RUNOFF COEFFICIENT	AREA (SF)	FRACTION OF TOTAL AREA	WEIGHTED RUNOFF COEFF.
TYPE C SOIL	0.05	618,421	0.96	0.05
CONCRETE/AC	0.95	2,597	0.00	0.00
ROOF	0.95	23,675	0.04	0.03
TOTAL		644,693	1.00	0.08



LEGEND

- UNDEVELOPED/SOIL
- EXISTING CONCRETE
- EXISTING ROOF
- DRAINAGE MANAGEMENT AREA

0' 75' 150' 300'

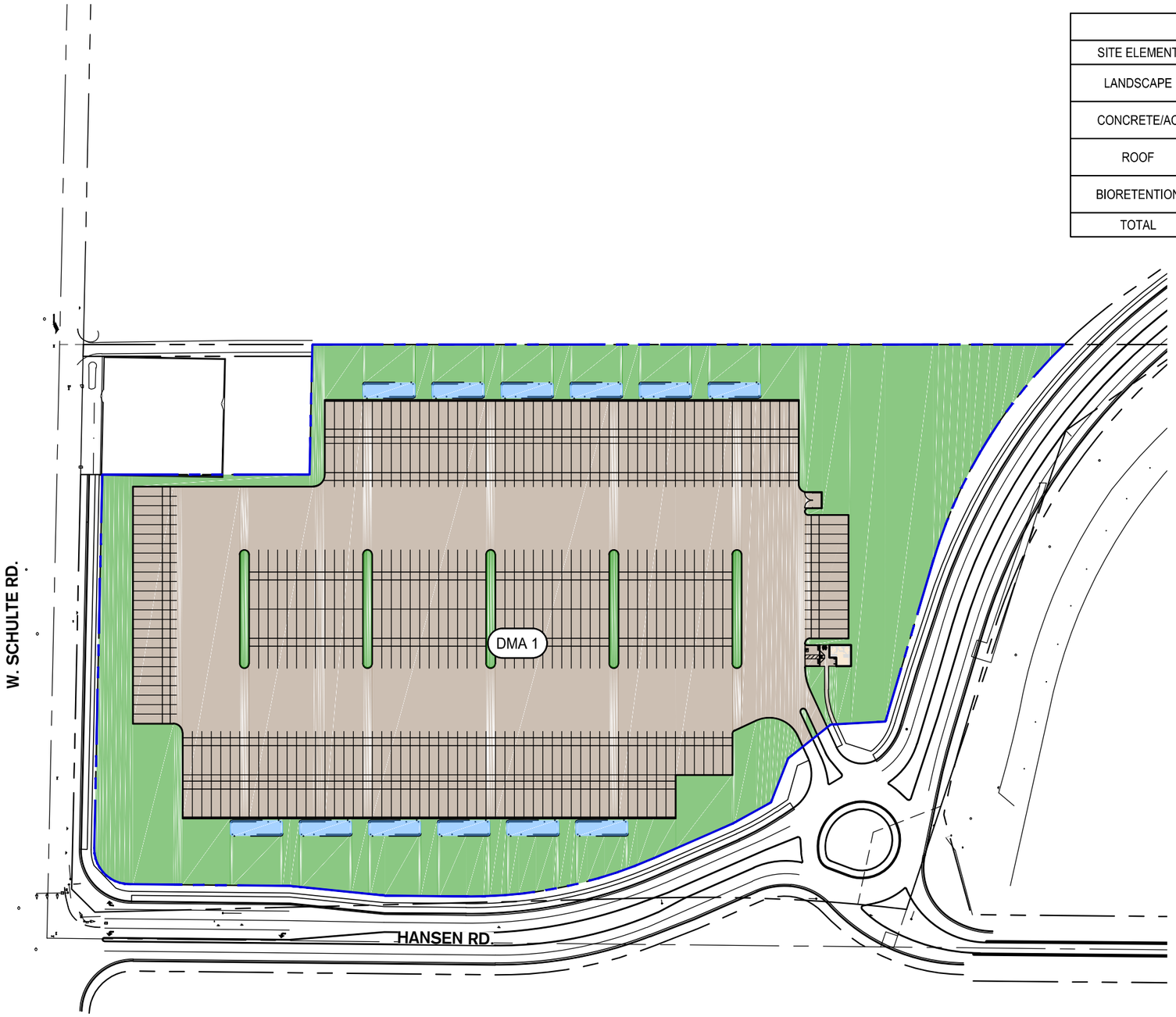
SCALE: 1"=150'

PRE-PROJECT DMA
SITE MAP AND SURFACES

SIEGFRIED

C.1

POST-PROJECT RUNOFF COEFFICIENT				
SITE ELEMENT	RUNOFF COEFFICIENT	AREA (SF)	FRACTION OF TOTAL AREA	WEIGHTED RUNOFF COEFF.
LANDSCAPE	0.25	228,365	0.35	0.09
CONCRETE/AC	0.95	405,692	0.63	0.60
ROOF	0.95	636	0.00	0.00
BIORETENTION	1.00	10,000	0.02	0.01
TOTAL		644,693	1.00	0.70



LEGEND

- LANDSCAPE
- CONCRETE
- ROOF
- TREATMENT
- DRAINAGE MANAGEMENT AREA

0' 75' 150' 300'

SCALE: 1"=150'

SIEGFRIED

POST-PROJECT DMA
SITE MAP AND SURFACES

C.2

RECEIVED
January 18, 2022
City of Tracy
Development Services

SCHULTE RD. WAREHOUSE

16286 W. Schulte Road
Tracy, CA 95377

STORMWATER QUALITY CONTROL PLAN (SWQCP)

Prepared For:

PANATTONI DEVELOPMENT COMPANY, INC.
8775 Folsom Blvd.
Sacramento, CA 95826
Contact: Abbie Wertheim
(916) 379-1109

Prepared By:

SIEGFRIED

3428 Brookside Road
Stockton, CA 95219
(209) 943-2021

Date Prepared: January 14, 2022

I. Attachments

Attachment 1 – Bioretention Sizing Worksheet

Attachment 2 – DMA Exhibits

ATTACHMENT 1

BIORETENTION SIZING WORKSHEET

SIEGFRIED
3244 Brookside Road, Suite 100
Stockton, CA 95219
209.943.2021 Fax: 209.942.0214

Job Number: 20174
Project Name: Schulte Rd. Warehouse
Workbook Name: Bioretention Area SQDV Calculation
Sheet Name: Post-Site
Date: 1/14/2022
Author: ARM

Post-Site

Site Parameters

Mean Annual Runoff-Producing Rainfall Depth (P_6):	0.33	in
Regression Coefficient (a):	1.963	
Site Design Measure Credits:	0.0	ft^3
Maximum Drawdown Time:	48	hr

Bioretention Area Properties

Bioretention Planting Zone Area:	12,000.0	ft^2
Open Space Initial Area:	159,395.0	ft^2
Ponding Depth:	12.0	in
=	1.000	ft
Planting Media Layer Depth:	1.50	ft
Planting Media Layer Porosity:	0.25	
Planting Media Infiltration Rate:	0.50	in/hr
Gravel Layer Depth:	1.00	ft
Gravel Layer Porosity:	0.40	
Gravel Layer Infiltration Rate:	1.00	in/hr
Total Infiltration Rate:	0.63	in/hr

$$f_{design,eq} = \frac{\sum d_i}{\sum\left(\frac{d_i}{f_{s,i}}\right)} = \frac{d_{pz} + d_{gl}}{\frac{d_{pz}}{f_{pz}} + \frac{d_{gl}}{f_{gl}}}$$

SIEGFRIED
3244 Brookside Road, Suite 100
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209.943.2021 Fax: 209.942.0214

Job Number: 20174
Project Name: Schulte Rd. Warehouse
Workbook Name: Bioretention Area SQDV Calculation
Sheet Name: Post-Site
Date: 1/14/2022
Author: ARM

Imperviousness Calculation

Site Element	Element Area (ft^2)	% Imperviousness	Weighting Factor	Weighted % Imperviousness
Landscape	147,395	25%	0.2286	5.72%
Concrete/AC	267,832	95%	0.4154	39.47%
Roof	217,466	95%	0.3373	32.05%
Bioretention	12,000	100%	0.0186	1.86%
Total	644,693			79.09%

Runoff Coefficient:	0.589		$C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$
Unit Stormwater Volume:	0.381	in	$P_0 = (a \times C) \times P_6$
SDV:	20,488.5	ft^3	$SDV = A \times \frac{P_0}{12}$
Adjusted SDV:	20,488.5	ft^3	
Bottom Surface Area Required:	11,542.8	ft^2	$A_s = \frac{SDV_{adj}}{d_{pz} + (\eta_{pm} \times d_{pm}) + (\eta_{gl} \times d_{gl})}$
Bottom Surface Area Required - Planting Zone Area:	-457.2	ft^2	
Infiltration Time Check (Good if Negative) (ft):	-0.73		$d_{pz} + (\eta_{pm} \times d_{pm}) + (\eta_{gl} \times d_{gl}) \leq \frac{f_{design}}{12} \times t_{\max}$

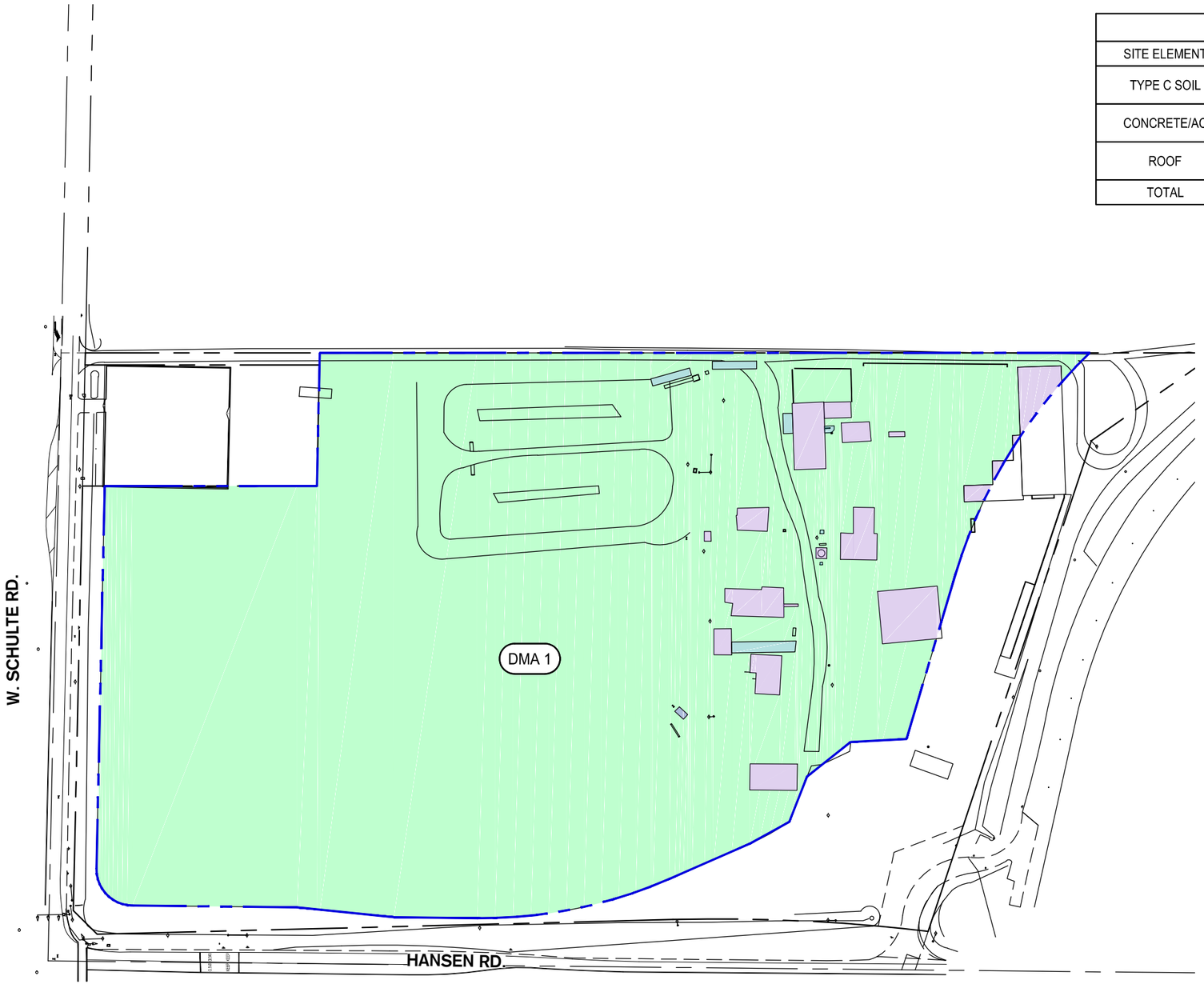
Stormwater Volume Managed by Bioretention: 21,300.0 ft^3

$$SDV_{design} = A_{design} \times [d_{pz} + (\eta_{pz} \times d_{pm}) + (\eta_{gl} \times d_{gl})]$$

ATTACHMENT 2

DMA EXHIBITS

PRE-PROJECT RUNOFF COEFFICIENT				
SITE ELEMENT	RUNOFF COEFFICIENT	AREA (SF)	FRACTION OF TOTAL AREA	WEIGHTED RUNOFF COEFF.
TYPE C SOIL	0.05	618,421	0.96	0.05
CONCRETE/AC	0.95	2,597	0.00	0.00
ROOF	0.95	23,675	0.04	0.03
TOTAL		644,693	1.00	0.08



LEGEND

- UNDEVELOPED/SOIL
- EXISTING CONCRETE
- EXISTING ROOF
- DRAINAGE MANAGEMENT AREA

0' 75' 150' 300'

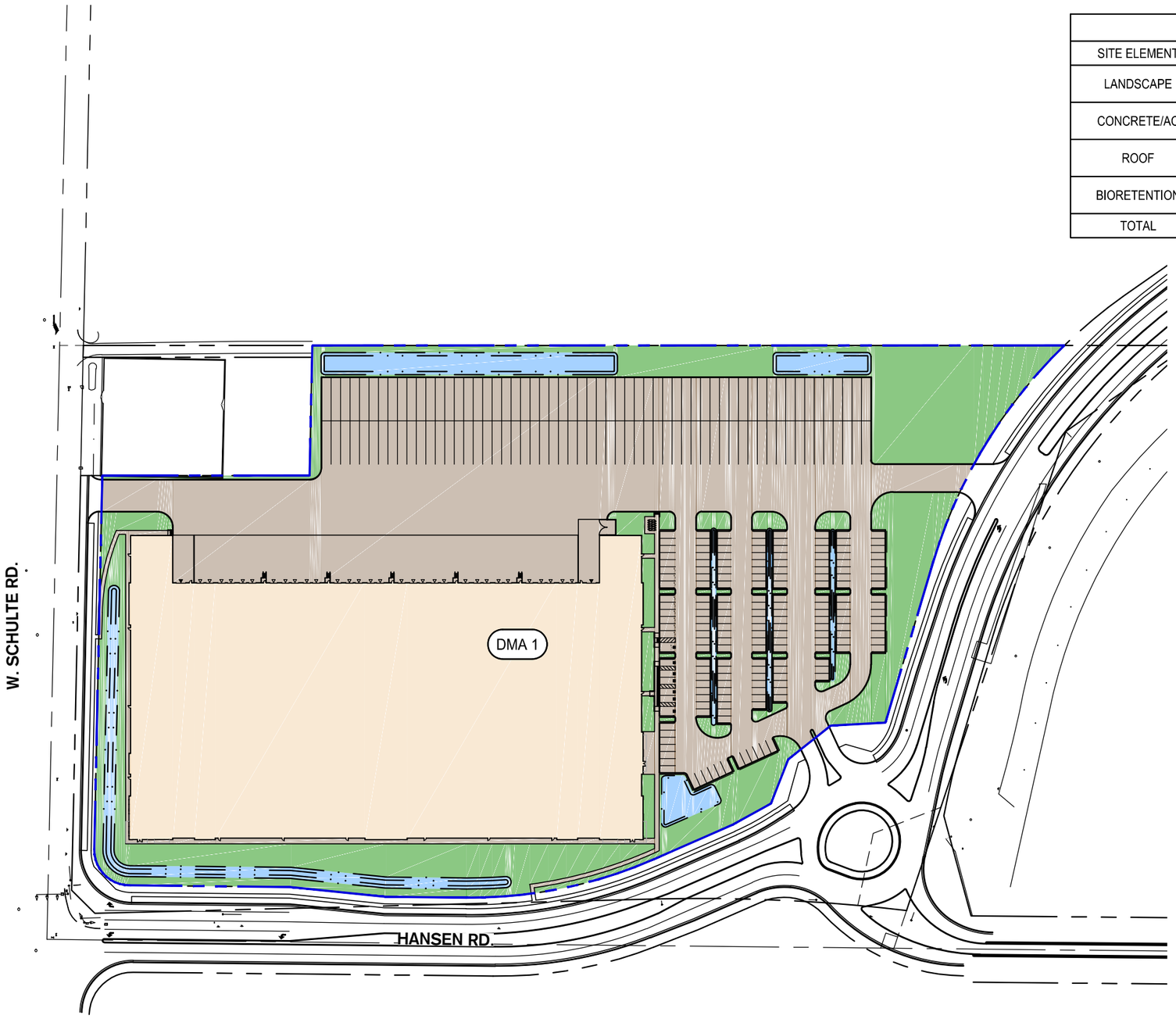
SCALE: 1"=150'

PRE-PROJECT DMA
SITE MAP AND SURFACES

SIEGFRIED

C.1

POST-PROJECT RUNOFF COEFFICIENT				
SITE ELEMENT	RUNOFF COEFFICIENT	AREA (SF)	FRACTION OF TOTAL AREA	WEIGHTED RUNOFF COEFF.
LANDSCAPE	0.25	147,395	0.23	0.06
CONCRETE/AC	0.95	267,832	0.41	0.39
ROOF	0.95	217,466	0.34	0.32
BIORETENTION	1.00	12,000	0.02	0.02
TOTAL		644,693	1.00	0.79



LEGEND

- LANDSCAPE
- CONCRETE
- ROOF
- TREATMENT
- DRAINAGE MANAGEMENT AREA

0' 75' 150' 300'

SCALE: 1"=150'

POST-PROJECT DMA
SITE MAP AND SURFACES

SIEGFRIED

C.2

APPENDIX K

Storm Drainage Technical Memo

Technical Memorandum

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

To:	Ms. Ilene Macintire, PE, City of Tracy
From:	Mr. Harvey Oslick, PE, Wood Rodgers, Inc.
Date:	October 10, 2022
Subject:	Storm Drainage for the Schulte Warehouse Project, D21-0020

PURPOSE

The purpose of this Technical Memorandum (TM) is to document technical analyses associated with storm drainage for the Schulte Warehouse Project (Project) site located southeast of the intersection of West Schulte Road and Hansen Road within the sphere of influence of the City of Tracy (City). These technical analyses are intended to accomplish the following objectives:

1. Identify how much temporary retention capacity would be required if the Project was to proceed before the connection to the Byron-Bethany Irrigation District (BBID)[1] system is established;
2. Determine the Project's share of the allowable discharge into the BBID drainage system;
3. Compute how much detention would be required to manage runoff originating on-site based on the allowable discharge into the BBID drainage system; and
4. Calculate peak discharges from the site without detention and use the peak discharges as a basis for preliminary pipe sizing in order to calculate cost comparisons between conveyance and storage options.

SITE DESCRIPTION

The Project site encompasses approximately 20.92 acres and is identified by Assessor's Parcel Numbers (APNs) 209-230-250 and 209-230-260. The larger parcel (APN 209-230-250) is proposed for development as part of the Project. The smaller parcel (APN 209-230-260), referred to as the Williams Communication Parcel, would not be developed.

The Project site is bordered by Hansen Road to the west, West Schulte Road to the north, and the Delta Mendota Canal to the south. The southern portion of the Project site is developed with three single-family residences and six ancillary structures. The Project site topography is generally flat, except for two five- to ten-foot-deep ponds located along the eastern site boundary from previous dairy operations.

[1] Byron-Bethany Irrigation District was formerly known as the West Side Irrigation District.

The proposed Project would include demolition of the three single-family residences and six ancillary structures, as well as redevelopment of the site with a one-story warehouse building and a surface parking lot.

The proposed warehouse would be 217,466 square-feet (sf) in total. The proposed parking area would include 206 vehicle parking stalls and 116 trailer parking stalls.

The Overall Site Plan lists the lot size as 649,074 square feet, or 14.9 acres. It is estimated that the 14.9-acre lot would be 77-percent impervious. For the purposes of this TM, it is assumed that one drainage system would be used for the 14.9-acre lot and that another drainage system would be used for roadway improvements on the Project site. It is estimated that the roadway drainage system would need to manage runoff from 5.0 acres that would be 50-percent impervious.

TEMPORARY RETENTION REQUIREMENT

Temporary storm drainage retention would be required if the Project proceeds prior to construction of the permanent connection from the Lammers Watershed to the BBID drainage system. Temporary retention requirements are promulgated in Sections 5.06 and 5.07 of the City's Design Standards. Section 5.07(D) includes a calculation procedure for sizing temporary retention basins. Assumptions were made to perform the calculation procedure for a temporary retention basin to accommodate runoff from the 14.9-acre Project lot and a separate basin that would mitigate for runoff from the 5.0-acre area with the new roadways. These calculations are for planning-level evaluations and should be updated as determined to be appropriate based on design-level measurements of the various cover types. One foot of freeboard is required above the required volumes listed below in **Tables 1** and **2** for the Main Project Lot and the roadways in the Project Area, respectively. Per Section 5.07(B), the depth of the basins must be limited so that the basins will empty by infiltration within a period of 10 days.

Table 1: Temporary Retention Basin Sizing for Main Project Lot

Cover	Surface Area	Surface Area	Runoff Coefficient	Rainfall Depth	Runoff
	(sq. ft)	(acres)		(feet)	(cu. ft)
Pond Basin	43,560	1	1	0.26	11,326
Paving	282,321	6.48	0.95	0.26	69,733
Roof	217,466	4.99	0.8	0.26	45,233
Comp. Earth	26,136	0.60	0.75	0.26	5,097
Lawn & Landscape	79,591	1.83	0.2	0.26	4,139
Total	**649,074**	**14.90**			**135,527**
				x2	271,054
Required volume (not inc. freeboard):				**6.22**	**ac. ft**

Table 2: Temporary Retention Basin Sizing for Roadways in Project Area

Cover	Surface Area	Surface Area	Runoff Coefficient	Rainfall Depth	Runoff
	(sq. ft)	(acres)		(feet)	(cu. ft)
Pond Basin	43,560	0.3	1	0.26	11,326
Paving	108,900	2.50	0.95	0.26	26,898
Roof	-	0.00	0.8	0.26	-
Comp. Earth	21,780	0.50	0.75	0.26	4,247
Lawn & Landscape	74,052	1.70	0.2	0.26	3,851
Total	**217,800**	**5.00**			**46,322**
				x2	92,643
Required volume (not inc. freeboard):				**2.13**	**ac. ft**

The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Conservation Service (SCS) soil data states that the expected saturate hydraulic conductivity at the Project site is equivalent to 0.06 inch per hour.[2] Typically, the maximum infiltration rate that can be assumed for a planning study is one-half of the saturated hydraulic conductivity, or 0.03 inch per hour. The low saturated hydraulic conductivity value would make reliance on infiltration to drain the basin within 10 days infeasible unless site-specific infiltration testing were to reveal that actual soil conditions would support a higher design infiltration rate. A geotechnical engineer should review site boring data in order to provide an opinion regarding the likelihood of site-specific tests showing a higher infiltration rate. To comply with the Design Standards, alternative means to drain the temporary retention basin within 10 days would need to be available if infiltration rates are not adequate.

MASTER PLAN CONCEPT

The 2012 Citywide Storm Drainage Master Plan (CSDMP) included the Project site within Subbasin L13 of the Lammers Watershed. The site had been expected to drain through Subbasin L14 into Detention Basin (DET) LW6. The concept that had been presented in the 2012 CSDMP was maintained in the Final Draft of the CSDMP Update. It is planned to drain DET LW6 into a system tributary to the BBID drainage system.

The primary issues with the concept presented in the 2012 CSDMP are that: 1) DET LW6 was undersized based on appropriate design assumptions that are discussed in detail in the Final Draft of the CSDMP Update; and 2) provisions to convey peak discharges from the Project site to DET LW6 had not been included.

As a result of the challenges associated with conveying peak flows to DET LW6, as well as with the inadequate capacity in DET LW6 (as currently configured) to accommodate runoff from the Project, it may now be advantageous for the Project to include permanent stormwater detention

[2] See Figure 17 in the 2021 Final Draft Citywide Storm Drainage Master Plan Update.

on-site. This would limit site runoff to its share of the capacity in the BBID drainage system, rather than having the permanent stormwater detention for the Project in DET LW6.

DISCHARGES INTO THE BBID DRAINAGE SYSTEM

Discharges into the BBID system are subject to the conditions detailed in the *2010 Drainage Agreement between the City of Tracy and the West Side Irrigation District*. The 2010 Agreement with the West Side Irrigation District (WSID) transferred to BBID. The 2010 Agreement allows up to 30 cubic feet per second (cfs) to be discharged from the Lammers Area as long as the maximum City discharge to the Main Drain[3] from all sources does not exceed 145 cfs. The Lammers Area covers approximately 8.6 square miles and includes the Cordes Ranch and Westside Ranch planning areas, the existing Costco and Safeway sites located south of West Schulte Road and west of the Delta Mendota Canal, and other areas (including the Project area). The Lammers Area is shown as draining towards detention basins LW1 through LW15 on Figure 27 in the CSDMP Update.

To stay within the 30-cfs discharge limitation, the sum of the peak discharges from the detention basins into the system that drains into the Sub-Main Drain cannot exceed 30 cfs. The allocation of capacity to each basin is generally calculated by tributary area, although it can be adjusted to consider the planned imperviousness of the tributary area and the rate at which water will infiltrate into the soils at the detention basin. Locations found to have relatively higher infiltration rates can support design of smaller basins with lower pumped or gravity outflows, as compared to basins at locations with lower infiltration rates. For planning purposes, a peak outflow rate of 0.01 cfs per tributary acre of typical commercial development can be assumed. Some variations from this may be determined to be appropriate for final design.

As discussed in the CSDMP Update, it is probable that there will be times when the discharge of runoff from the City through the Grant Line Road storm drain into the Main Drain will be approximately 145 cfs. During peak flow conditions when flows in the Main Drain are already close to 145 cfs, the discharge of an additional 30 cfs from the Lammers Area could violate the terms of the 2010 agreement. To manage conditions that could cause excessive flows in the Main Drain, it is recommended that plans be in place to turn off pumps and curtail gravity discharges from the Lammers Area as are determined to be necessary in order to avoid violations of the 2010 Agreement.

ON-SITE STORMWATER DETENTION CAPACITY

The detention basin sizing procedure detailed in Section 5.2.1 of the Final Draft CSDMP was applied to size on-site stormwater detention basins using the same assumptions for tributary areas that were used in the Temporary Retention Requirement section of this TM. Both basins were sized assuming that small pumps would be used to control outflows. Key parameters used in the basin sizing process are included below in **Table 3**. Alternative configurations could be evaluated in the design process. Site-specific infiltration tests should be used to form a basis for

[3] See Figures 2 and 6 in the 2021 Final Draft Citywide Storm Drainage Master Plan Update for maps of facilities and major drainage areas.

design and to determine if infiltration could be used to manage some runoff in order to help meet stormwater quality management requirements.

Table 3: Permanent Detention Basin Sizing

Parameter	Unit	Project Lot	Roadway Area
Tributary area	acres	14.9	5.0
Imperviousness		0.77	0.50
Depth	feet	9	6
Side slope	H:1V	4	4
Infiltration rate	inches per hour	0.03	0.03
Pumping rate	cfs	0.15	0.05
Volume with freeboard	acre-feet	4.2	1.1
Top area (no buffer)	acres	0.72	0.29

The facility sizes listed in Table 3 do not address stormwater quality treatment requirements. However, treatment requirements could be readily addressed by adding drain rock and a biofiltration layer below the bottom of the basins. The pumps can be configured to withdraw water from an underdrain (perforated pipe) placed in the rock layer. Landscape planning would need to consider the potential duration of inundation from both relatively frequent events and larger, infrequent events. Though much more expensive to construct, options for underground storage (such as large diameter corrugated metal pipe) are also available. The on-site permanent detention basins, if used, could connect to the 18-inch storm drain currently planned for West Schulte Road without requiring any additional capacity.

If on-site detention basins are not used, on-site stormwater quality treatment measures would still be required, and the receiving storm drains would need to have sufficient capacity to convey 100-year runoff to DET LW6. DET LW6 would need to be expanded as determined to be necessary to accommodate the runoff from the Project area.

CONVEYANCE TO DET LW6 NEEDED FOR PEAK DISCHARGES WITHOUT ON-SITE DETENTION

Peak discharges from the Project site would need to be conveyed approximately 9,000 feet to DET LW6 if on-site detention is not constructed. If on-site detention is used to attenuate discharges to the allowable discharge rate into the BBID system, no additional conveyance would be required. However, if on-site facilities are only adequate to accommodate water quality flows, peak discharges from a 100-year storm would need to be conveyed to DET LW6. Based on the assumption that the surcharging of stormwater quality bioretention basins would result in the Project site having a time of concentration of 60 minutes, peak flows from the site could be computed using a rainfall intensity of 0.847 inch per hour[4]. According to Section 5.04

[4] See Grid 10 in Figure 9 of the Final Draft Citywide Storm Drainage Master Plan Update.

of the Design Standards, the design discharge rate would be 14 cfs for the Project area of 20.6 acres based on a runoff coefficient of 0.8 for commercial development. The discharge of 14 cfs would exceed the capacity of the existing 18-inch storm drain. A new 24-inch storm drain would be required to convey 14 cfs from the Project site to DET LW6. At a cost of $300 per foot, 9,000 feet of pipe would cost $2,700,000.

PEAK FLOW ATTENUATION OPTION

A potential third alternative would include providing sufficient on-site detention to limit peak 100-year discharges from the Project area to the capacity of the existing storm drain from the vicinity of Project to DET LW6, then providing all of the attenuation necessary to limit discharges to the capacity of the BBID system at DET LW6. This option would require significant amounts of detention at the Project site without reducing the detention necessary at DET LW6. If the applicant determines that this option would have advantages, the proposed configuration would be reviewed to determine if it meets the various design requirements.

APPENDIX L

Preliminary Geotechnical Engineering Study

PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

PROPOSED NEW ONE-STORY WAREHOUSE BUILDING
16286 W. SCHULTE ROAD [APN: 209-280-250]
TRACY, CALIFORNIA

Prepared for
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December 11, 2020
Condor Project No. 8435

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ASTM E 1643-18a
ASTM E 1745-17

PRELIMINARY GEOTECHNICAL ENGINEERING STUDY

PROPOSED NEW ONE-STORY WAREHOUSE BUILDING
16286 W. SCHULTE ROAD [APN: 209-280-250]
TRACY, CALIFORNIA

1.0 INTRODUCTION

1.1 GENERAL

This report includes the results of a Preliminary Geotechnical Engineering Study (GES) for a proposed new one-story warehouse building located at 16286 W. Schulte Road in Tracy, California. The general location of the site is shown on the Figure 1 – Vicinity Map, and Figure 2 – Site Map with Boring Locations in Appendix A. Condor Earth (Condor) performed this GES at the request of Development Manager, Ms. Abbie Wertheim of Panattoni Development Company, Inc. (Panattoni). This GES is intended to meet the requirements of 2019 California Building Code (CBC).

1.2 PROJECT DESCRIPTION

We understand that design of the proposed project is currently underway and final details are not available as of this writing. At the time this proposal was prepared, we understand that the proposed development will encompass one parcel of land totaling approximately 18.66 acres. The subject property is located at 16286 W. Schulte Road in Tracy, California, and designated by San Joaquin County Assessor's Parcel Number (APN) 209-280-250. We understand that the proposed development will be an approximate 280,680 square foot one-story, slab-on-grade warehouse building supported on continuous and isolated footings with associated site improvements and parking. Appurtenant construction will include paved roadways, driveways, car ports, various concrete exterior flatwork, and underground utilities. A roadway may bisect the site and alter the current site layout.

2.0 PURPOSE AND SCOPE

This GES was performed to: 1) characterize geotechnical conditions at the site; 2) identify geotechnical or geologic conditions that might impact design or construction of the site; 3) provide geotechnical recommendations to mitigate geologic and geotechnical constraints to the site; and 4) provide geotechnical design criteria for development of the site, and design of project foundations, slabs-on-grade, and pavement for the proposed improvements.

Condor completed the following work for this GES:

1. Reviewed available geotechnical and seismic data relevant to the site and its immediate vicinity.
2. Explored, sampled, and classified subsurface soils within the site by means of four (4) exploratory soil borings drilled to depths of 16.5 to 26.5 feet. The locations of these borings are shown on Figure 2 – Site Map with Boring Locations, Appendix A. Detailed soil boring logs are included in Appendix B.
3. Tested soils sampled during the subsurface exploration to measure their pertinent engineering and index properties. The tests included R-value (lime treated), moisture content, dry unit weight, atterberg limits, grain size distribution and corrosion potential. Laboratory test results are presented in Appendix C.
4. Analyzed the findings from the field exploration and laboratory testing to develop geotechnical recommendations for:

a. General earthwork, including site stripping, subgrade preparation, temporary excavations, permanent slopes, trench backfill, import fill, compaction criteria, and site surface drainage;
b. Foundation design and construction, including foundation type, allowable bearing capacities, lateral resistance, settlement, and foundation depth;
c. CBC 2019 seismic design criteria;
d. Potential seismic hazards and recommendations for mitigation;
e. Concrete slabs and exterior flatwork; and
f. Asphalt pavements (based on soil type of the near-surface subgrade materials)

5. Prepared this written report summarizing our findings, conclusions, and geotechnical recommendations.

3.0 SUBSURFACE EXPLORATION METHODS

Condor explored subsurface conditions at the location of the project site by means of four (4) boreholes total. Two (2) drilled to approximately 16.5 feet (B3, and B4), one (1) boring drilled to approximately 21.5 feet (B1), and one (1) boring drilled to approximately 26.5 feet (B4). The locations are shown on Figure 2, Appendix A. The soil borings were drilled on November 17, 2020 by V & W Drilling (License C57#720904) with a truck-mounted drilling rig, using hollow stem auger drilling methods. Boreholes were sampled at 2.5-foot intervals from the ground surface to 10 feet, and at 5-foot intervals from 10 feet to the total depth explored alternating between a 3-inch OD California Modified (CM) sampler fitted with 2.5 OD metal liners and a 2-inch OD Standard Penetration Test (SPT) sampler. All samples were collected using a 140-pound auto-hammer falling 30 inches to drive the sampler. Field blow counts were recorded as the number of hammer blows required to drive the sampler the final 12 inches of an 18-inch drive. Recorded blow counts shown on the boring logs for the California modified sampler have been approximately correlated to SPT blow counts by using a factor of 0.67.

A Condor geologist visually classified soil samples and cuttings at the time of drilling using the Unified Soil Classification System. No groundwater was encountered during drilling. All the boreholes were backfilled using tremie grout under the observation of a San Joaquin County Environmental Health Department inspector. The boring locations are presented in Figure 2, Appendix A. Detailed soil boring logs are presented in Appendix B, and laboratory test results are presented in Appendix C.

4.0 SITE DESCRIPTION

The site is bound on the west by Hansen Road and open/agricultural land west of Hansen Road, on the north by W. Schulte Road and industrial development to the north, on the east by agricultural land, and on the south by the Delta Mendota Canal. The site is generally flat and drains from the southwest to northeast. The site has been in some type of agricultural use for at least the past 60 plus years. The site currently has residences and hobby animal operations in the southern porting of the site (see Figure 2). The site was also a former dairy site and remnants of past diary operations are present on the property.

A historic ephemeral stream which was mapped as crossing the site from the southwest to northeast has been filled with undocumented artificial fill as part of the agricultural land leveling that occurred to grade to site for pasture. Historic site photos are shown in Figures 5 and 6. Based on the photos, the agricultural leveling have been performed before 1963. This was confirmed through conversation with the owner who indicated that the sites history was consistent with the photo documentation. The location of the historic stream is indicated in Figure 5, as is the Delta Mendota canal in the 1952 photo. Though is it difficult to

estimate the depth of the stream or the depth of cut and fill performed during land leveling, it is estimated that the backfill of the stream is on the order of five feet or less.

The remnant of two historic manure ponds exist in the central portion of the site along the eastern boundary as shown in Figure 2. Discussion with the owner indicate that the bottom of the ponds were removed on most of the organics at the time their use stopped, however this was not confirmed through testing. The ponds currently do not collect runoff other that precipitation directly into the ponds. The ponds appear to be 5 to 10 feet deep and have a berm around the perimeter.

5.0 GEOLOGIC AND SEISMIC SETTING

5.1 REGIONAL GEOLOGY

The Site is located in the upper San Joaquin Valley near the eastern foothills of the Coast Ranges. Together, the Sacramento and San Joaquin Valleys form the Great Valley Geomorphic Province of California. The Great Valley lies between the Coast Ranges to the west and the Sierra Nevada Range to the east. The Great Valley is a northwest-trending, west-dipping geosyncline that has infilled with as much as six vertical miles of sediment.

The Coast Range Mountains generally consist of northwest trending ridges of Franciscan Assemblage and granitic basement rocks. The bedrock complex of the Sierra Nevada Mountains generally consists of metamorphosed sedimentary and volcanic rocks of Paleozoic and Mesozoic age (150 to 300 million years old) and plutonic rocks (chiefly granitic types) of Mesozoic age (80 to 150 million years old). Structurally, the Coast Range - Sierra Nevada Block Boundary Zone, a regional geological boundary separating Franciscan basement rocks of the Coast Range from granitic basement rocks of the Sierra Nevada Range, is present at depth near the western margin of the Great Valley Geomorphic Province.

5.2 LOCAL GEOLOGY

Sediments deposited by streams draining the eastern slopes of the Diablo Range have formed gently sloping alluvial fans, which compose the surface and near-surface soils across the site. These deposits are underlain by late Jurassic to Cretaceous marine and non-marine sediments of the Great Valley Sequence (Wagner and others, 1987). The project site is mapped within Older Alluvium Deposits (Q_O). The geologic distribution of surface deposits in the vicinity of the Site is shown on Figure 3 – Geologic Map, Appendix A.

5.3 FAULTING AND SEISMICITY

The Site is located in a moderately seismic region of California's Central Valley. The locations of significant faults relative to the site are shown on Figure 4 – Regional Fault Map, Appendix A.

No known faults cross the Site, and the site is not located in a Fault-Rupture Hazard Zone as established by the Alquist-Priolo Earthquake Fault Zoning Act (Hart, 1994 and 2007). Therefore, ground rupture from faulting is not considered a significant hazard. The site is also not in an area covered by the Seismic Hazard Mapping Act which includes landslide and liquefaction hazards. Nevertheless, the site is near a number of major active faults capable of generating strong earthquakes.

6.0 SUBSURFACE CONDITIONS

Condor explored subsurface conditions by means of four (4) borings ranging in depth from 16.5 to 26.5 feet below existing grade. The borehole locations are shown on Figure 2, Appendix A.

6.1 EARTH MATERIALS

Based on the soil borings, the native soils consist of stiff lean clay and sandy lean clay (CL) of medium plasticity ranging from three to seven feet thick underlain by firm to very stiff silt underlain by medium dense to dense sand and clayey sand. Laboratory testing of near-surface soils resulted in Plasticity Indices (PI) ranging from 17 to 28. The amount of fine sand in the lean clays varies throughout the site as well. This indicates the soils are low to moderately expansive when subjected to fluctuations in moisture content.

Undocumented artificial fill exists in the area of the manure ponds and the infilled stream channel. If the extent of undocumented fill requires detailed beyond the estimates in this report, additional shallow exploration will be required prior to final design to estimate the extent and depth of non-engineered fill across the site. We recommend that this exploration can be performed using backhoe test pits.

6.2 LOCAL GROUNDWATER CONDITIONS

Groundwater was not encountered during our subsurface exploration. Based on our review of California Department of Water Resources, SGMA Data Viewer, groundwater is estimated to be encountered at a depth of approximately 90 feet below ground surface. Shallow perched groundwater may be encountered onsite but is unlikely based on the slope and soil types. The depth to groundwater is expected to fluctuate in response to both seasonal rainfall and irrigation of surrounding farmland. If shallow groundwater is encountered, the contractor should be prepared to dewater the ground to provide for stable excavations. We recommend that groundwater levels be investigated immediately prior to construction to define anticipated conditions.

6.3 GEOLOGIC HAZARDS

6.3.1 Faulting

No known active or potentially active faults cross the Site, and the site is not located in a Fault-Rupture Hazard Zone as established by the Alquist-Priolo Earthquake Fault Zoning Act (Hart, 1994). Therefore, ground displacement from surface rupture is not considered a significant hazard at the site. The site location relative to local faults is shown on Figure 4, Appendix A.

6.3.2 Asbestos Bearing Rock

The nearest ultramafic rock outcrops, that may contain asbestos, are approximately 20 miles to the southwest in the Coast Range Mountains (Churchill, et al., 2000). Asbestos has been shown to remain in soils and can be transported. However, no imported rock was observed on site and natural transport would appear to be unlikely. The potential hazard from encountering naturally occurring asbestos bearing ground at the ground surface and in excavations at the site is considered low.

7.0 SEISMIC CONSIDERATIONS

7.1 SEISMIC DESIGN PARAMETERS

Probabilistic values of ground motion corresponding to various levels of seismic hazards are available on-line from professional organizations using the USGS data to retrieve the seismic design data and presents the findings in a report format. The USGS uses a probabilistic model to estimate ground motions corresponding to various levels of seismic hazard. Site soils were classified using the procedures specified in the 2019 CBC, which utilizes ASCE 7-16.

The results of the general seismic analysis using the 2019 CBC for Site Class D (stiff soil) are summarized below and provided in more detail in Appendix D. The recommended values for design of the proposed structures are:

Risk Category		II
Site Class:		D
Seismic Coefficient,	S_s:	1.375g
Seismic Coefficient,	S_1:	0.47g
Site Coefficient,	Fa:	1.2g
Site Coefficient,	Fv:	null – see below
Adjusted Seismic Coefficient ,	S_{MS}:	1.65g
Adjusted Seismic Coefficient ,	S_{M1}:	null – see below
Design Parameter,	S_{DS}:	1.1g
Design Parameter,	S_{D1}:	null – see below

g = acceleration due to gravity

The 2019 CBC incorporates procedures outlined in ASCE 7-16. Section 11.4.8 of ASCE 7-16 and other referenced sections provides options for either developing a ground motion hazard analysis or taking exceptions. The applicable exception for this project is Exception 2 because the design Site Class is D and because S_1 is 0.2 or greater. The exception requires using a 1.5-value to factor-up C_s values for periods (T) greater than $1.5*T_s$ (from equations 12.8-3 and 12.8-4). The intent of the code is to increase the design seismic base shear for longer periods unless a detailed ground motion hazard analysis is performed allowing for lower design base shears for the longer periods.

Condor suggests that taking the exception will be appropriate for this project because:

- The proposed building is relatively low-rise (with a relatively short design period)
- Detailed ground motion hazard analyses require a significant effort and time to complete

Condor can, however, facilitate the ground motion hazard analysis if the structural engineer/owner determine that developing one will significantly reduce construction and design costs.

7.2 LIQUEFACTION, SEISMIC SETTLEMENT POTENTIAL

Liquefaction normally occurs when sites underlain by saturated, loose to medium dense, granular soils are subjected to relatively high ground shaking. During an earthquake, ground shaking may cause certain types of soil deposits to lose shear strength, resulting in ground settlement, oscillation, loss of bearing capacity, landsliding, and the buoyant rise of buried structures. The majority of liquefaction hazards are associated with sandy soils, silty soils of low plasticity, and some gravelly soils, with high groundwater. Cohesive soils (clays) are generally not considered to be susceptible to liquefaction. In general, liquefaction hazards are most severe within the upper 50 feet of the surface, except where slope faces or deep foundations are present. The potential for an earthquake with the intensity and duration characteristics capable of promoting liquefaction is a possibility during the design life of the project.

Due to the depth the groundwater and the stiff condition of the site soils, liquefaction is not considered a risk at this site and additional investigation or mitigation is not recommended.

8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 GENERAL

Based on our findings, it is our professional opinion that the site should be suitable from a geotechnical standpoint for construction of the proposed new one-story warehouse building and associated improvements provided the geotechnical recommendations contained herein are incorporated into the project design. Given the site conditions encountered, we conclude that conventional shallow foundations and reinforced concrete slab-on-grade construction should provide adequate support for the anticipated structural loading. The primary geotechnical considerations from a development standpoint are as follows:

- The presence of undocumented artificial fill of the historic drainage channel and berms associated with the historic manure pond should be removed and replaced with engineered fill. We estimate a minimum of 1 to 5 feet of existing fill and native soils will require removal and replacement with engineered fill in the vicinity of the historic stream. It is estimated that the entirety of the manure pond berms that is above the surrounding site grade is undocumented fill and will require removal. Refer to Section 4.0, Site Description, for additional discussion of each. Engineered fill may consist of select import soil or re-compacted native soils as described in section 8.2.4 of this report.
- The near-surface soils underlying the site consist of moderately plastic clays. It has been our experience that these soils can exhibit shrink-swell (expansion) characteristics with variations in moisture content and pose a risk for post-construction heave and cracking of concrete slabs, as well as lightly loaded foundations and pavements. We therefore recommend treatment to reduce this potential using lime treatment for grading of both the building and pavement areas in Sections 10.0 and 12.0.
- The site has a history of past land leveling associated with its agricultural history. We therefore recommended that the existing one foot of existing soils be removed and replaced with Engineered fill prior to placing additional engineered fill. In addition, we have provided minimum depths of engineered fill below foundations and building slab-on-on grade in Section 8.2.1. Engineered fill may consist of select import soil or re-compacted native soils as described in section 8.2.4 of this report.

Specific conclusions and recommendations addressing these geotechnical considerations, as well as general recommendations regarding the geotechnical aspects of design and construction, are presented in the following sections.

8.2 GRADING AND EARTHWORK RECOMMENDATIONS

All grading and site work should be performed in accordance with the 2019 CBC, Title 24, Chapter 18 (Soils and Foundations), and Appendix J (Excavation and Grading), and with the recommendations of the Geotechnical Engineer of Record during construction. Where the recommendations of this report and the cited sections of Title 24 are in conflict, the owner should request clarification from the Geotechnical Engineer of Record. The recommendations of this report should not be waived without the consent of the Geotechnical Engineer of Record for the project. Recommendations for additional work and construction monitoring are contained in later sections of this report.

8.2.1 General Grading Recommendations and Site Preparation

Due to the past agricultural use of the site and past site use for stockpiles, we recommend that all building structures be founded on a minimum of 2 feet of engineered fill beneath concrete slab-on grade and 1 foot of engineered fill below foundations. This may require some over-excavation in areas of cut or thin fill

thicknesses. The requirement for overexcavation below foundations may be waived where the bottom of footings are a minimum of five feet below existing site grade at the time of this investigation when approved by the Geotechnical Engineer.

At the time of our field visits, the site was covered in weeds and grasses and organic matter from cattle grazing. Areas to support slabs, pavements, foundations, and new engineered fills should be stripped of all vegetation, debris, organic topsoil, or any existing non-engineered fill or other unsuitable material or soil. Stripping should extend at least 5 feet beyond the limits of the proposed improvements. Soils containing more than 3 percent organic material by dry weight over baseline conditions should be considered organic. Stripping depths should be determined at the time of grading by the Geotechnical Engineer of Record or a qualified representative. Stripping may be waived when discing can be shown to achieve the recommendations of this report, and when approved by the Geotechnical Engineer of Record. For planning, an average stripping depth of 2 inches may be used when discing is not applicable and tall grass is present. Any organic-laden material which is free from debris may be stockpiled for later use in non-structural areas where approved by the owner, but such material should not be used for engineered fill.

8.2.2 Overexcavation

In addition to the required removal of existing undocumented artificial fills (see Section 8.1), minimum depths of engineered fill beneath buildings and foundations are recommended in Section 8.2.1. We also recommend that the upper 1 foot of existing site soils, as measured from existing site subgrade, in areas to support the proposed concrete flatwork, hardcourt areas, structures, and any non-structural improvements susceptible to vertical movement, be removed and replaced with engineered fill in accordance with Section 8.2.5, Engineered Fill Placement. The zone of overexcavation should extend laterally at least 5 feet beyond the perimeter of the proposed improvements. If soft or yielding soils are exposed by this processing, excavation should continue until stiff, non-yielding soils are encountered. The depth and extent of required overexcavation should be approved in the field by the Geotechnical Engineer of Record prior to placement of fill or improvements.

8.2.3 Subgrade Preparation

After overexcavation has been achieved, the exposed subgrade should be scarified to a depth of 6 to 12 inches, uniformly moisture conditioned to between 3 to 5 percent over optimum moisture, and compacted to achieve a minimum relative compaction of 90 percent of the ASTM D1557 maximum dry density. Field density tests should be taken to verify compaction of the prepared subgrade in these areas.

8.2.4 Fill Materials

Engineered fill used for the project should be either 1) select import engineered fill, or 2) general on-site soils with less than 3 percent organic content by dry weight.

Select import engineered fill should be inorganic, have an R-value of at least 50, a plastic index less than 7, or an expansion index classification of “very low”. In addition, select import engineered fill should meet the following particle-size gradation:

Sieve Opening	Percent Passing, by Dry Weight
4-inch square	100
3/4-inch square	70 minimum
U.S. No. 4	60 minimum
U.S. No. 200	40 maximum

Fill material that does not meet the above criteria should be tested under the direction of the Geotechnical Engineer of Record to determine if it has engineering properties equivalent to, or better than, the existing site materials. Samples of any proposed imported fill material should be submitted to the Laboratory of Record for testing and approved by the Geotechnical Engineer of Record prior to being brought to the site.

General on-site engineered fill should be inorganic, contain no rocks greater than 4-inches in least dimension, and be free of deleterious materials. Soils containing more than 3 percent by dry weight of organic material should be considered organic. Subsurface data and laboratory test data indicate that the near-surface soil encountered in the borings generally meets the criteria for on-site engineered fill. However, the near-surface soils are also considered potentially expansive and should be addressed as discussed in Section 8.2.6.

8.2.5 Engineered Fill Placement

Engineered fill should be placed in a series of horizontal layers not exceeding 8 inches in loose thickness, uniformly moisture-conditioned, and compacted to achieve a minimum relative compaction of 90 percent of the ASTM D1557 maximum dry density. Non-expansive fill soils should be uniformly moisture conditioned to between 1 and 3 percentage points above the optimum moisture content. Fill soils composed of the documented non-engineered fill and native clays should be uniformly moisture conditioned to between 3 and 5 percentage points above the optimum moisture content. Additional fill lifts should not be placed if the previous lift did not meet the required relative compaction or if soil conditions are not stable. Discing, tilling, and/or blending may be required to uniformly moisture-condition soils used for engineered fill. The upper 12 inches of pavement subgrades should be compacted to at least 95 percent relative compaction based on the Caltrans Test Method (CTM) 216 test procedure.

8.2.6 Lime Treatment

Slabs-on-grade and exterior hardscape may be supported on lime treated native soils in lieu of non-expansive, select import. If the lime-treatment option is desired, the subgrade soil should be chemically treated with 3 percent lime (quicklime or hi-calcium). Lime-treated R-value results are included in Appendix C. The lime should be spread with a mechanical spreader and mixed with a high-speed rotary mixer. Once the lime is mixed initially, it should mellow, be remixed, and be compacted to at least 92 percent relative compaction based on a CTM 216 test for areas beneath buildings and hardscape concrete, and 95% for asphaltic pavement. Lime stabilization mixing and compaction should conform to Section 24 – Lime Stabilization of the Department of Transportation Standard Specification, current edition, included in Appendix E. The treatment should follow after rough grades are achieved and the site is graded per Section 8.2. Curing of the stabilized surface should be performed per the Caltrans specifications, including the application of an emulsion.

The pH of chemically-treated soils will be very high (12+) and will not facilitate plant growth. Therefore, planning the extent of treated areas or removal of treated areas (if necessary) should be considered prior to treatment.

The subgrade soils within the proposed paved areas may also be lime treated to reduce the thickness of aggregate base material required. Refer to Section 12.0 for the depth of lime treatment required based on the anticipated traffic index.

8.2.7 Excavations

Excavations will typically encounter unconsolidated silts and clays. These materials can be easily excavated with conventional earthmoving equipment. We anticipate that temporary excavations less than 5 feet deep and above groundwater may be cut as steep as 1½H:1V (horizontal to vertical). Deeper cuts should be considered on a case-by-case basis due to variable conditions and potential of shallow groundwater. Refer to Section 6.2 for additional discussion of anticipated groundwater depth and potential mitigations. All open cuts should be in compliance with applicable Occupational Safety Health Administration (OSHA) regulations (California Construction Safety Orders, Title 8) and should be monitored for evidence of incipient instability. The final inclination of both permanent cut and permanent fill slopes above the groundwater level should be made no steeper than 2H:1V.

8.2.8 Earthwork Shrinkage

Earthwork shrinkage should be anticipated in existing fill and native ground when removed and replaced using engineered fill. Shrinkage is difficult to estimate due to the variable conditions of the existing fill and native ground. For planning purposes, a range of 0 to 5 percent shrinkage may be used for estimation purposes as the probable range of shrinkage. Soils that are lime treated may be anticipated to swell during grading by 0 to 5 percent.

8.3 UNDERGROUND UTILITY TRENCHES

Unless concrete bedding is required around utilities, pipe bedding should consist of sand with a sand equivalent of at least 30 or the pipe manufacturer's requirements, whichever is more restrictive. The pipe bedding should extend from 6 inches below the invert of the pipe to 1 foot above the crown of the pipe. The pipe bedding material should be compacted to a minimum of 90 percent relative compaction or the manufacturer's recommendations if more stringent.

Trench backfill above the pipe bedding zone should be placed in the same manner as required in Section 8.2.5, Engineered Fill Placement. On-site fill soils and "non-organic" native soils may be used as backfill in trenches above the pipe bedding. Utility trench backfill should be placed in layers not exceeding a loose lift thickness of 8 inches, uniformly moisture conditioned, and compacted to a minimum of 90 percent relative compaction.

Compaction criteria for trench backfill above the bedding zone may be decreased to 85 percent relative compaction in landscape areas at least 5 feet beyond structural improvements, except in areas overlain by pavements, sidewalks, or other hardscapes. In landscape areas overlain by pavements, sidewalks, or other hardscapes, we recommend that the trench backfill be compacted to a minimum of 90 percent relative compaction to within 1 foot of the finished subgrade surface. The upper 1 foot should be compacted to 95 percent relative compaction in areas to receive AC pavement.

8.4 SURFACE DRAINAGE CONTROL

Surface drainage should be planned to prevent ponding and to enable water to drain away from building foundations, slabs, and edges of pavements toward suitable collection of discharge facilities. A positive surface drainage of at least five percent should be provided within 10 feet of all building foundations. Elsewhere, positive surface drainage of at least two percent is recommended to allow for rapid removal of surface water. Pavements should also be designed with minimum gradients of about 2 percent in their principal direction of drainage, unless drainage reaches are short. Roof drainage systems should be planned to direct rainwater away from building foundations. A detailed drainage plan is outside the scope of this report but should be included in the preparation of the grading plans for the project.

9.0 FOUNDATION RECOMMENDATIONS

9.1 GENERAL FOUNDATION RECOMMENDATIONS

All foundation improvements should be designed and constructed in accordance with the 2019 CBC, Title 24, Chapter 17 (Structural Tests and Special Inspections), Chapter 18 (Soil and Foundations), and all other sections applicable to the proposed structural improvements. Note that all stated preliminary bearing pressures in Section 8.0 are net values, and the weight of concrete in the portion of the foundations that extends below grade can be neglected in proportioning the foundations. Further evaluation of the subsurface may be warranted based on any other specific foundation designs not considered in this report.

Site characteristics considered in selection of appropriate foundation system include the presence of moderately expansive surface clays. The major consideration in foundation design at the site is the swell potential of the near-surface soils. The effect of heaving can be reduced by the choice of a proper foundation system. In order to reduce the effects of the potentially-expansive soils, the foundations should extend below much of the zone of seasonal moisture variation or be constructed sufficiently stiff to move as rigid units with differential movement of foundations from heaving or settlement reduced to a value compatible with the proposed superstructure type and architectural finishes. The project structural engineer should take this into account when designing the foundations. Provided that the site is graded and all building pads are prepared in accordance with the recommendations provided herein, it is our opinion that a conventional foundation system would be appropriate for the proposed building foundations. The geotechnical engineer should review final foundation plans when they become available.

9.2 SHALLOW FOUNDATION DESIGN

We recommend that Condor review the landscape plans, as well as general grading plans, to confirm conformance with our design assumptions. The proposed buildings may be supported by a conventional strip-and-spread-footing system provided the pad is underlain by 18 inches of non-expansive select import material or lime-treated soil. Footings do not require support on non-expansive or lime treated soils. Conventional footings should be designed according to the following design criteria:

Maximum Allowable Bearing Pressure:	3,000 psf for dead-plus-live loads. This value can be increased by 30 percent to include seismic or wind loads.
Minimum Depth of Footing:	At least 24 inches below adjacent lowest pad grade for exterior footings, and 18 inches below the bottom of slab grade for interior footings.

Lowest adjacent grade for exterior footings should be the lowest elevation of adjacent compacted soil subgrade and should not include landscape fill. It is also assumed that lime treated soils supporting the building concrete slab-on-grade is extended a minimum of 24 inches beyond the edge of the footing exterior. Where this is not achieved, the footing should be deepened to a minimum embedment of 30 inches. The geotechnical engineer should review foundation plans when they become available.

Footing trenches should be cleared of all loose materials, and soils exposed in footing excavations should not be allowed to desiccate prior to placing concrete. The geotechnical engineer's field representative should observe the condition of the footing trenches for suitability prior to concrete placement.

9.3 LATERAL RESISTANCE

Resistance to lateral loads (including those due to wind or seismic forces) may be determined using the friction between the bottom of concrete foundations and the underlying soil and the passive soil pressure acting against the vertical face of the footings. These two modes of resistance can be combined.

Sliding resistance to lateral forces may be calculated using a coefficient of friction of 0.30. The passive pressures available in engineered fill and undisturbed native soil may be taken as equivalent to pressures exerted by fluids weighing 350 pounds per cubic foot (pcf), assuming that the ground adjacent the foundation is level. These allowable values include a reduction factor of 1.5 to limit the foundation movement required to mobilize the ultimate passive resistance. Both values have an applied factor of safety of 2.0.

Passive resistance contributed by soils within 1 foot of the ground surface should be neglected unless the ground is covered and confined by a slab-on-grade or pavement. To mobilize passive pressure, gaps between the footing and adjacent ground should be completely backfilled using engineered fill, concrete, or lean cement sand slurry with a 28-day unconfined compressive strength of at least 500 pounds per square inch (psi).

9.4 CONSTRUCTION CONSIDERATIONS

It is critical that soils exposed in foundation excavations and slab subgrades be maintained at their as-graded moisture content to limit their potential for volume change. Foundation soils should be protected or wetted to maintain adequate moisture and prevent drying. Where drying has occurred, re-moisturizing to a depth consistent with the final foundation design should be performed. Concrete should not be placed on soil surfaces where desiccation cracks are present.

We recommend that a representative of the Geotechnical Engineer of Record observe all foundation excavations prior to the placing of reinforcing steel. This inspection should be conducted to ensure that the bottoms and sides of all foundation excavations are level or suitably benched and are free of loose or soft soil, ponded water, and debris. If any loose pockets are encountered in the bottom of the foundation excavations, they should be over-excavated, and the base of the excavation should be recompacted or backfilled with lean concrete. It is important that foundation excavations be clean and free of loose or soft soils, water, or other debris at the time concrete is placed.

10.0 SLABS-ON-GRADE

10.1 INTERIOR CONCRETE SLABS

As discussed in Section 6.0, our findings indicate the near-surface soils include a range of soils, including moderately to highly plastic clays. It has been our experience that these soils can exhibit significant shrink-swell (expansion) characteristics with variations in moisture content and pose a risk for post-construction heave and cracking of concrete slabs. Concrete floor slabs should be supported on at least 18 inches of lime-treated soil or non-expansive engineered fill or designed as post-tension slabs. The zone of lime treatment or non-expansive engineered fill should extend at least 5 feet outside the perimeter of the building.

Concrete slabs should be constructed on a surface prepared as described in Section 8.2. Where dampness of floor slabs is to be minimized, the slabs should be constructed on a minimum 4-inch-thick layer of capillary break material covered with a high quality vapor retarder. The capillary break material should be free-draining, clean gravel or rock such as No. 4 by ¾-inch pea gravel or permeable aggregate complying with Caltrans Standard Specifications, Section 68, Class 1, Type B. A 2-inch-thick protective cover (blotter)

of clean sand should be placed over the vapor retarder. The vapor retarder should have a minimum thickness of 15 mils, a permeance as tested before and after mandatory conditioning (ASTM E 1745, Section 7.1.2 – 7.1.5) of less than 0.01 perms [grains/(ft^2 · hr · inHg)], and comply with the ASTM E 1745 Class A requirements. Vapor retarders having these properties are commonly referred to as "vapor barriers". The designer of record may omit the blotter at their discretion when a concrete with a water-cement ratio of 0.45 or less is specified. The vapor retarder should be constructed in accordance with ASTM E 1643-09 using material which meets ASTM E 1745. A licensed copy of ASTM E 1643-09 is included in Appendix D.

Slab surfaces to receive moisture sensitive floor coverings should have considerations for maximum vapor emission levels. Most floor coverings require a 3 or 5 pound emission levels for a warranted installation. Emission levels may be controlled by the use of a sub-slab vapor barrier meeting ASTM E 1745 Class A, ASTM E 154 resistance to puncture of not less than 3000 grams and ASTM E 154 tensile strength after soaking of not less than 55.5 (MD/TD) average.

Slabs should be cast using concrete with a maximum slump of 4 inches or less. Excessive water content is the major cause of concrete cracking. To reduce concrete shrinkage, a water reducing agent or plasticizer may be utilized in the concrete to increase slump while maintaining an appropriate water/cement ration. Hot reinforcing steel should be cooled prior to concrete placement to help prevent concrete shrinkage at the bar location. Where there is potential for moisture accumulation under the slab, special consideration should be given to allow gravity drainage of any water that could migrate into the subgrade of the slab or rock cushion.

The following table provides our recommended minimum interior slab-on-grade. The final design interior floor slab thickness and reinforcement should be provided by the Project Structural Engineer.

INTERIOR BUIDLING MINIMUM SLAB-ON-GRADE

Building Pad Subgrade	Minimum Slab Thickness	Minimum Reinforcement
18 inches of non-expansive fill (PI <7) or lime treated native soil compacted to 90 percent (See Note d.)	5 inches PCC	#4 at 24 inches O.C.E.W.

Notes:

a. PCC = Portland Cement Concrete with minimum compressive strength of 4,000 psi, and jointed and reinforced per structural design for shrinkage.
b. All grading recommendations per Section 8.2 are to be followed.
c. All lime treatment per Caltrans Standard Specifications, current edition.

10.2 EXTERIOR CONCRETE SLABS

Exterior concrete slabs (i.e., sidewalks, building aprons, etc.) should be constructed over 4 inches of Class 2 Aggregate Base over 12 inches of non-expansive select import engineered fill or lime-treated soil prepared as discussed in Section 8.2, and should be reinforced or jointed and scored to limit cracking from shrinkage. The final design exterior slab thickness and reinforcement should be provided by the Project Structural Engineer.

Exterior concrete used for vehicle traffic should consist of a minimum of 6 inches of concrete over 4 inches of Class 2 Aggregate Base over 12 inches of non-expansive select import engineered fill or lime-treated soil.

Replacement of native soil with non-expansive soil will not eliminate all movement associated with changes in moisture content of underlying clay but will significantly reduce movement.

11.0 RETAINING WALLS

11.1 LATERAL EARTH PRESSURES

Active earth pressures may be used for design of unrestrained retaining walls where the top of the wall is free to translate or rotate. To develop active earth pressures, the walls should be capable of deflecting by at least 0.004H (where H is the height of the wall). At-rest earth pressures should be used for design of retaining walls where the wall top is restrained such that the deflections required for development of active soil pressures cannot occur or are undesirable. Cantilever walls retaining engineered fill may be designed for active or at-rest lateral earth pressures for various backfill slopes using the following equivalent fluid unit weights. The lateral earth pressures presented in the table below assume the wall backfill is drained (no hydrostatic forces acting on the wall) and no traffic or other surcharge loads are applied within a distance of one-half the wall height.

Equivalent Fluid Unit Weight (pcf)

Backfill Slope	Active Conditions	At-Rest Conditions
Level	50	75
3H:1V	60	90
2H:1V	70	105

The lateral earth pressures should be applied to a plane extending vertically upward from the base of the heel of the retaining wall to the ground surface. Lateral pressures for backfill slopes other than those given above can be estimated by interpolation.

Where the wall backfill will be subject to traffic loading within a distance of H/2 (where H is the wall height) from the top of the wall, the wall should be designed to resist an additional uniform lateral pressure of 65 psf applied to the back of yielding walls (active conditions), or 110 psf applied to the back of non-yielding walls (at-rest conditions). The surcharge load should extend from the top of the wall down to 10-feet below the top of wall. Surcharge loads imposed by greater loads or unusual loads within a distance of H of the back of the wall should be considered on a case-by-case basis.

11.2 WALL DRAINAGE

The above lateral earth pressures are based on fully drained conditions. For these conditions, we recommend that the retaining wall backfill be free-draining and provisions are made to collect and dispose of excess water away from the wall. Wall drainage may be provided by either a minimum 1-foot wide layer of clean drain rock/gravel enclosed by geosynthetic filter fabric or by prefabricated drainage panels (such as Miradrain, Enkadrain, or an equivalent substitute) installed per the manufacturer's recommendations. In either case, drainage should be collected by perforated pipes and directed to a sump, storm drain, weep holes, or other suitable location for disposal. The drain rock should conform to Class One, Type B permeable material as specified in Section 68 of the California Department of Transportation (Caltrans) Standard Specifications, current edition. A typical 1 inch x No. 4 concrete coarse aggregate mix approximates this specification. A clean pea-gravel is also acceptable. The geosynthetic filter fabric should conform to the requirement in Section 88, "Engineering Fabrics" of the Caltrans Standard Specifications, current edition. A 4-inch diameter perforated pipe at least Schedule 40 PVC, or similar, should be placed "holes down" near the bottom of the section of permeable material and directed to discharge by gravity to a suitable outlet. The upper 18 inches of engineered backfill above the wall drainage should consist of

native material, concrete, asphaltic concrete, or similar backfill to reduce surface drainage into the wall drainage system.

12.0 PAVEMENTS

Based on our exploratory borings, the near-surface soils across the site are generally moderately plastic clays that have a low traffic support capacity when recompacted and used as pavement subgrade. Pavement sections[1] for untreated subgrade soils are presented below based on the Caltrans minimum R-value of 5, current Caltrans design procedures, and four traffic index (TI) values for traffic loading (TI = 4.0, 5.0, 6.0 and 7.0). The TI is a measure of traffic wheel loading frequency and intensity of anticipated traffic. For comparison, TI's of between 4 and 5 are often suitable for design of automobile parking areas, whereas TI's of between 5 and 6 are commonly used for design of fire truck access lanes and areas subject to channelized flow with light delivery trucks. Traffic lanes that carry regularly bus traffic and fire lane should be designed for higher TI values based on specific conditions. Traffic indices assumed should be reviewed by the project Owner, Architect, and/or Civil Engineer to evaluate their suitability for this project. Pavement sections for other traffic loading should be designed on a case-by-case basis. The use of rigid concrete pavement is favored where trash pick-up or truck traffic necessitates short radius maneuvering and/or heavy metal bin movement on rollers.

RECOMMENDED UNTREATED SUBGRADE PAVEMENT SECTIONS

Traffic Index	Asphalt-Concrete (inches)	Class 2 Aggregate Base (inches)	LTB* (inches)
4.0	2.5	8	-
	2.5	4.0	12.0
5.0	3.0	10.0	-
	3.0	4.0	12.0
6.0	3.5	13.0	-
	3.5	4.0	12.0
7.0	4.0	16.0	-
	4.0	4.0	13.0

*LTB= Lime-Treated Base consisting of 3 percent quick lime treated soil. All trenching in areas to be designed for LTB conditions shall be performed prior to lime treatment.

The above sections have been developed based on an assured R-value of 5 for untreated subgrade, and a minimum R-value of 50 for lime treated subgrade. For lime treated subgrade, we recommend that the subgrade soil be chemically treated with 3 percent lime. For planning purposes, a lime spread rate of 3.5 pounds per square foot per foot of treated finished depth may be assumed.

The pavement sections provided above are contingent on the following recommendations being implemented during and following construction.

[1] *Caltrans design procedures for asphalt concrete pavements provide sections in units of inches, rounded up to the nearest 1/2-inch. Sections provided include no Gravel Equivalent Safety Factor (per County Engineers Association and the League of California Cities criteria). If required a Gravel Equivalent Safety Factor is required, the pavement sections should be reevaluated.*

- The subgrade soils in the upper 12 inches below the finished subgrade elevation should be compacted native subgrade soil or lime-treated soil compacted to achieve a minimum relative compaction of 95 percent of the CTM 216 maximum wet density.
- All trench backfill for culverts, utilities and pipes underlying paved areas should be properly placed and compacted to at least 90 percent relative compaction (ASTM D1557) within 1 foot of finished subgrade elevation. The upper 12 inches of trench backfill should be compacted to at least 95 percent relative compaction (CTM 216).
- The subgrade soils should be in a stable, non-pumping condition at the time the aggregate base material is placed and compacted.
- Aggregate base and aggregate subbase materials should conform to the specifications stated in Section 25 and 26 of the current Caltrans specifications and be compacted as engineered fill to at least 95 percent relative compaction.
- Asphalt paving materials and placement methods should meet current Caltrans specifications for asphalt concrete.
- Adequate drainage (both surface and subsurface) should be provided such that the subgrade soils and aggregate base materials are not allowed to become continuously wet.
- All concrete curbs separating pavement and landscaped areas should extend at least 2 inches into the subgrade and below the bottom of the adjacent aggregate base to provide a barrier against lateral migration of landscape water or runoff into the pavement section. For better performance, we recommend that subdrains be considered along edges of roads where there are slopes and especially swales that descend towards pavement
- Periodic maintenance should be performed to repair degraded areas and seal cracks with appropriate filler.

The pavement sections provided above are based on the subsurface conditions encountered during our field investigation, our assumptions regarding final site grades, and limited laboratory testing. Due to grading operations, the actual pavement subgrade materials may vary significantly from those tested for this study. If this is the case, representative subgrade samples should be obtained and additional R-value tests performed. If the results of these tests vary significantly, the pavement sections presented above will need to be revised.

Portland cement concrete pavements may be constructed directly over Class 2 Aggregate Base or lime-treated soils. Concrete pavements that support truck and bus traffic should be a minimum of 8 inches in thickness and should be designed to accommodate temperature expansion/contraction using reinforcement or appropriate joint control. All Portland cement concrete used for driveways and exterior traffic uses should have a minimum compressive strength of 3,000 psi and should contain entrained air to help prevent freeze damage.

13.0 CORROSION POTENTIAL

Chemical tests were performed on one discrete sample of the near-surface soils. The test result is provided in Appendix C. We recommend that the results be reviewed and incorporated into the design of buried metal and concrete reinforcement. If warranted, a corrosion expert should be consulted to develop specific recommendations.

14.0 ADDITIONAL SERVICES

The geotechnical recommendations and design criteria given in this report are sensitive to the location, design details, and any special requirements of the new construction. Condor should review the geotechnical elements of project grading, foundation plans and specifications prior to construction bidding to check that the intent of our recommendations has been incorporated into these project documents. If Condor does not review the geotechnical elements of the plans and specifications, the reviewing geotechnical engineer should thoroughly review this report and concur with its conclusions and recommendations or provide alternative recommendations.

Because surface conditions vary across the site, geotechnical recommendations used as a basis for construction contracting are sensitive to the possible need for adjustment in the field. The adjustments are dependent upon conditions revealed during construction that could previously only be assumed based upon site exploration. Since the intent of the recommendations given in this report are best understood by a Condor representative, we recommend that field observations and testing during earthwork and construction be performed by Condor. If Condor does not provide the field observations and testing, the geotechnical engineer of record should thoroughly review this report and concur with its conclusions and recommendations or provide alternative recommendations.

The geotechnical engineer or qualified representative should be on-site to observe and advise during site preparation, grading and earthwork, paving, and construction of foundations and slabs-on-grade. These observations should be supplemented with periodic density and compaction testing of subgrade and engineered fills to evaluate conformance with the recommendations contained in this report. It is important that foundation excavations be checked after cleaning and immediately prior to concrete placement to verify their suitability.

15.0 LIMITATIONS

The geotechnical conclusions and recommendations presented in this report are intended for planning, design, and construction of the new one-story warehouse building as described in this report. These conclusions and recommendations may be invalid if:

- the design assumptions change;
- the report is used for another site or project;
- the encountered soil or groundwater conditions are different than those anticipated in this report;
- the recommendations contained in this report are not followed; or
- any other change is implemented that materially alters the project.

This report was prepared in accordance with the generally accepted standards of geotechnical engineering practice existing in San Joaquin County at the time it was written. No other warranty, expressed or implied, is made. It is the owner's responsibility to see that all parties to the project, including the designer, contractors, subcontractors, etc., are made aware of this report in its entirety.

The analyses and recommendations submitted herein are based upon subsurface and surface soil data and on general field observations made during site visits. Subsurface exploration of any site is necessarily confined to selected locations and conditions may, and often do, vary between and around these locations. Should varied conditions come to light during construction on the project site, additional exploration, testing, or analysis may be required. Any person concerned with this project who observes conditions or features of the site or its surrounding areas that are different from those described in this report, should report them immediately to Condor for evaluation.

It should be noted that changes in the standards of practice in the field of geotechnical engineering, changes in site conditions (such as new excavations or fills), new agency regulations, or modifications to the proposed project are grounds for this report to be professionally reviewed. In light of this, there is a practical limit to the usefulness of this report without critical professional review. It is suggested that two years be considered a reasonable time for the usefulness of this report.

We trust this report provides the information required at this time. Please call with any questions.

Respectfully submitted,

CONDOR EARTH TECHNOLOGIES, INC.

Ronald L. Skaggs
Geotechnical Engineer (CA #2295)
Vice President

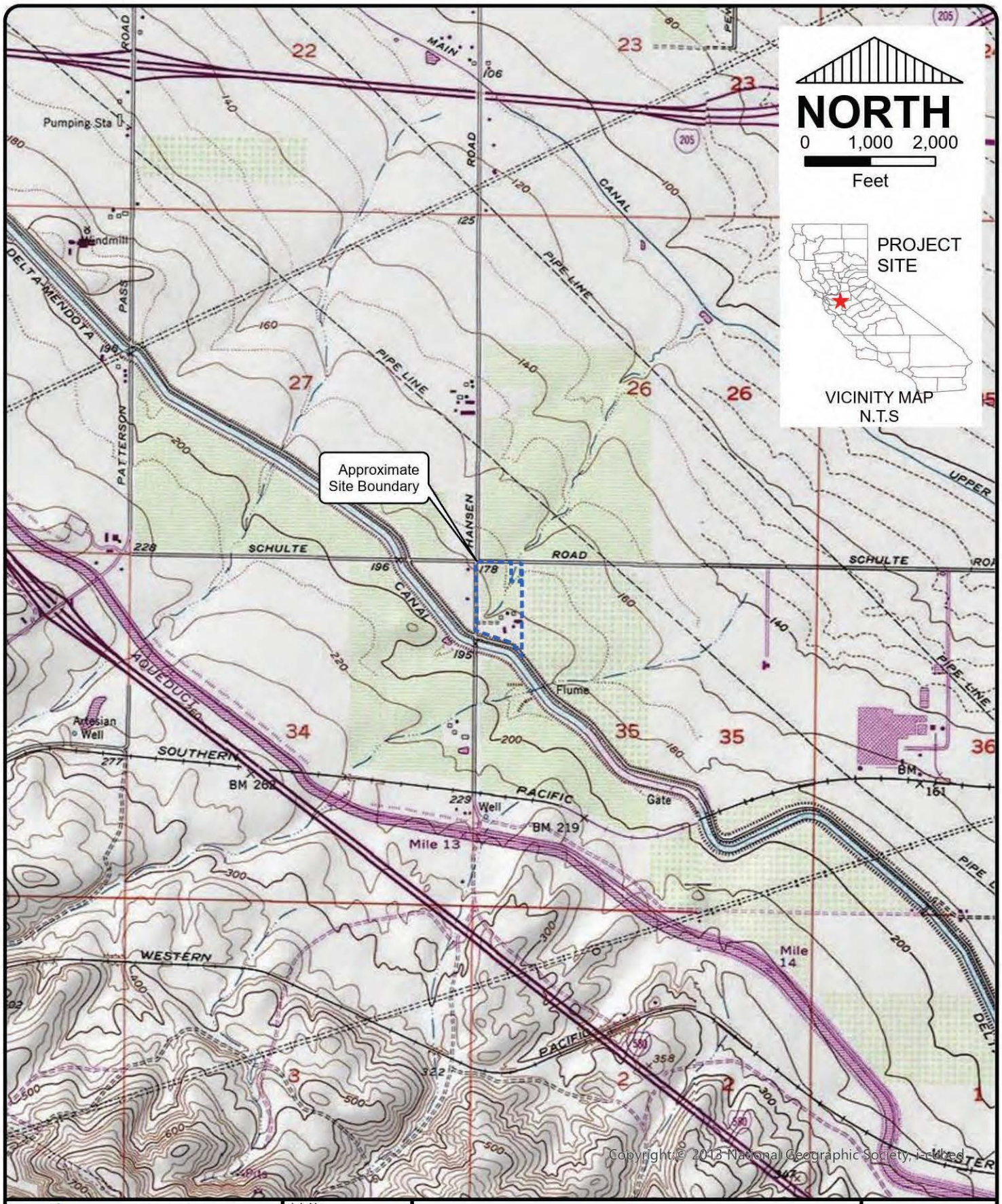
X:\Project\8000_prj\8435 Panattoni - W. Schulte Rd\Reports\FR 20201211 Prelim._GES.docx

16.0 REFERENCES

California Building Code, 2019, California Building Standards Commission, and International Conference of Building Officials, 2012.

Churchill, R.K. and Hill, R. L., A General Location Guide For Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos, August 2000, California Department of Conservation, Division of Mines and Geology, Open File Report 200-19

APPENDIX A
FIGURES



CONDOR EARTH
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www.condorearth.com

Job No.	8435
Date	07 Dec 2020
Scale	AS SHOWN
Drawn	JW
Chk'd	LA

VICINITY MAP
PANATTONI DEVELOPMENT COMPANY, INC.
PROPOSED NEW ONE-STORY WAREHOUSE BUILDING
16286 W. SCHULTE ROAD
TRACY, CALIFORNIA

FIGURE 1

8435_Panattoni.aprx

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8435	10 Dec 2020	AS SHOWN	JW	LA

SITE MAP WITH BORING LOCATIONS
PANATTONI DEVELOPMENT COMPANY, INC.
PROPOSED NEW ONE-STORY WAREHOUSE BUILDING
16286 W. SCHULTE ROAD
TRACY, CALIFORNIA

FIGURE 2

8435_Panattoni.aprx

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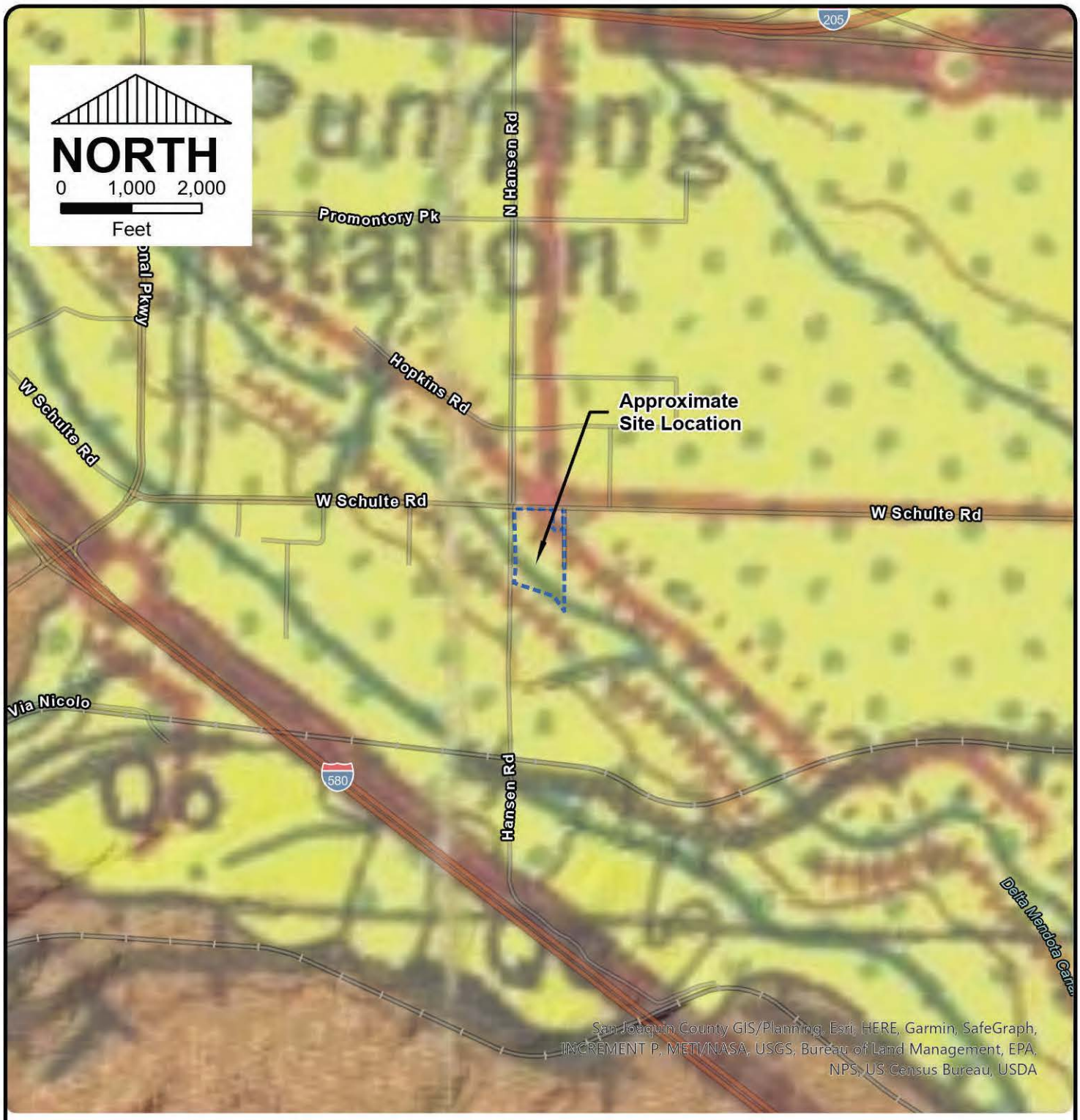

LEGEND

APPROXIMATE SITE BOUNDARY

Qo Older alluvium

Source:
California Geological Survey, C.W. Jennings, Carlos Gutierrez, William Bryant, George Saucedo, Chris Wills, 1977

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Date	19 Nov 2020
Scale	AS SHOWN
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Chk'd	LA

GEOLOGIC MAP
PANATTONI DEVELOPMENT COMPANY, INC.
PROPOSED NEW ONE-STORY WAREHOUSE BUILDING
16286 W. SCHULTE ROAD
TRACY, CALIFORNIA

FIGURE 3

8435_Panattoni.aprx

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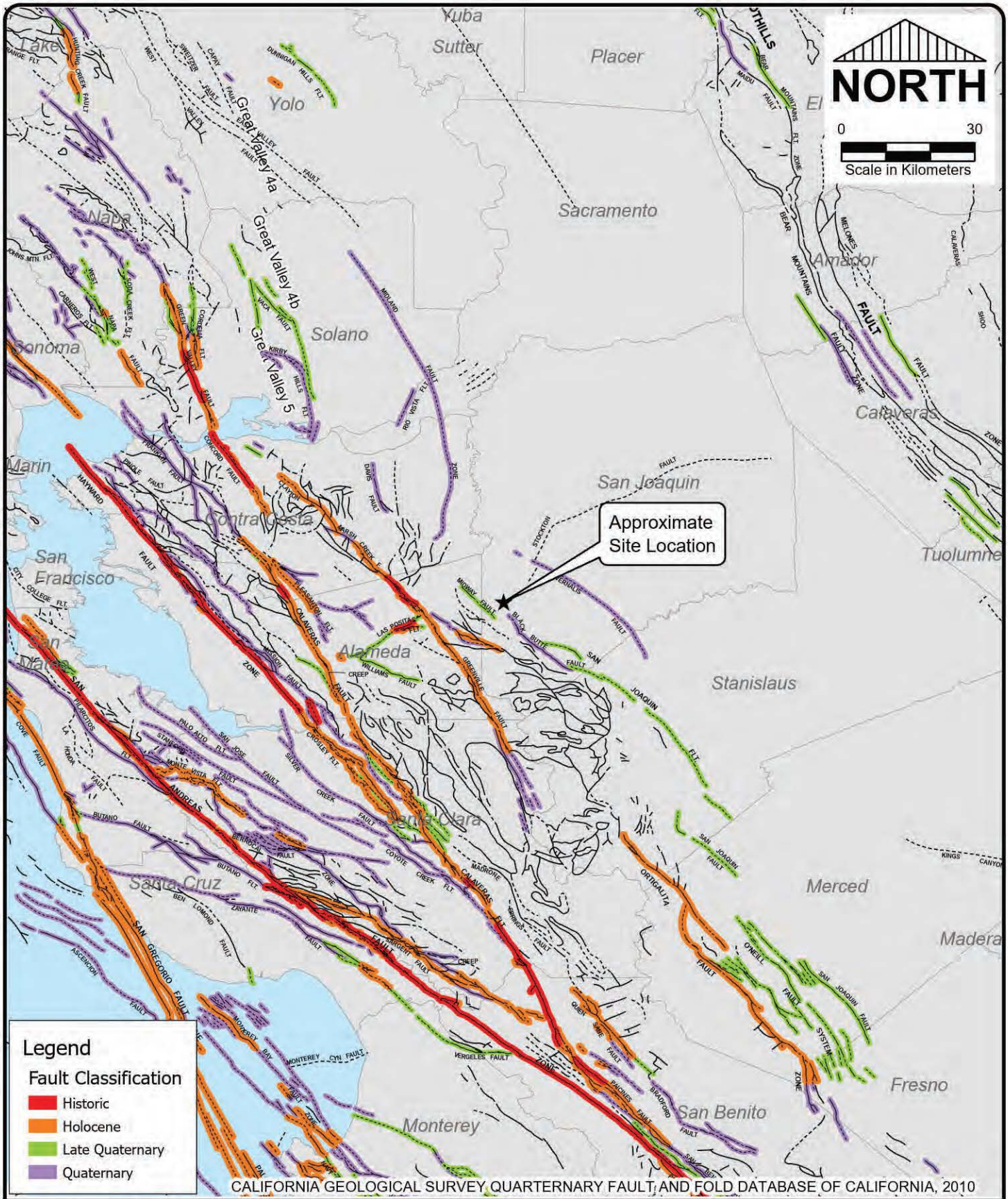

CALIFORNIA GEOLOGICAL SURVEY, QUARTERNARY FAULT AND FOLD DATABASE OF CALIFORNIA, 2010

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8435	07 Dec 2020	AS SHOWN	JW	LA

REGIONAL FAULT MAP
PANATTONI DEVELOPMENT COMPANY, INC.
PROPOSED NEW ONE-STORY WAREHOUSE BUILDING
16286 W. SCHULTE ROAD
TRACY, CALIFORNIA

FIGURE 4

8435_Panattoni.aprx

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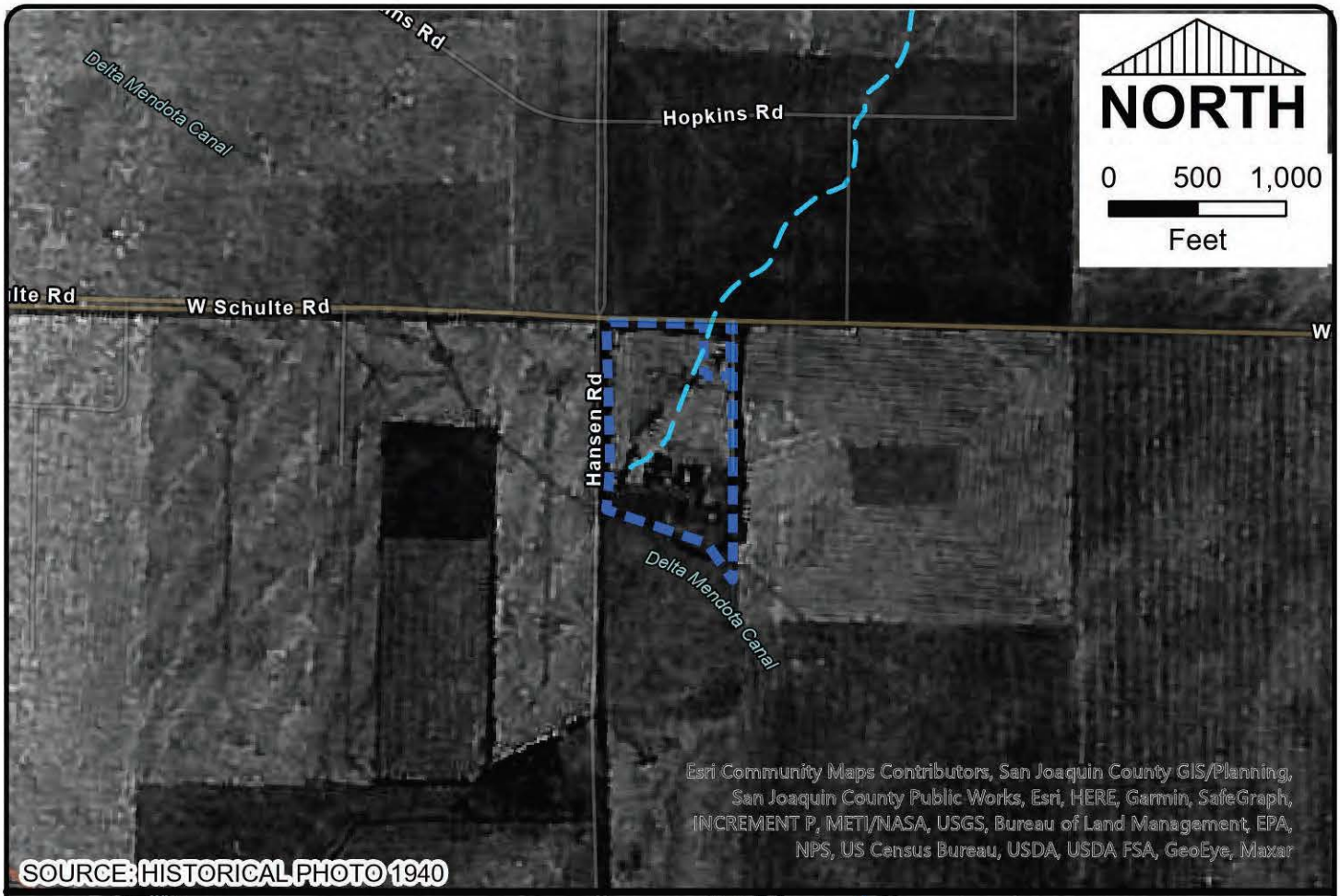

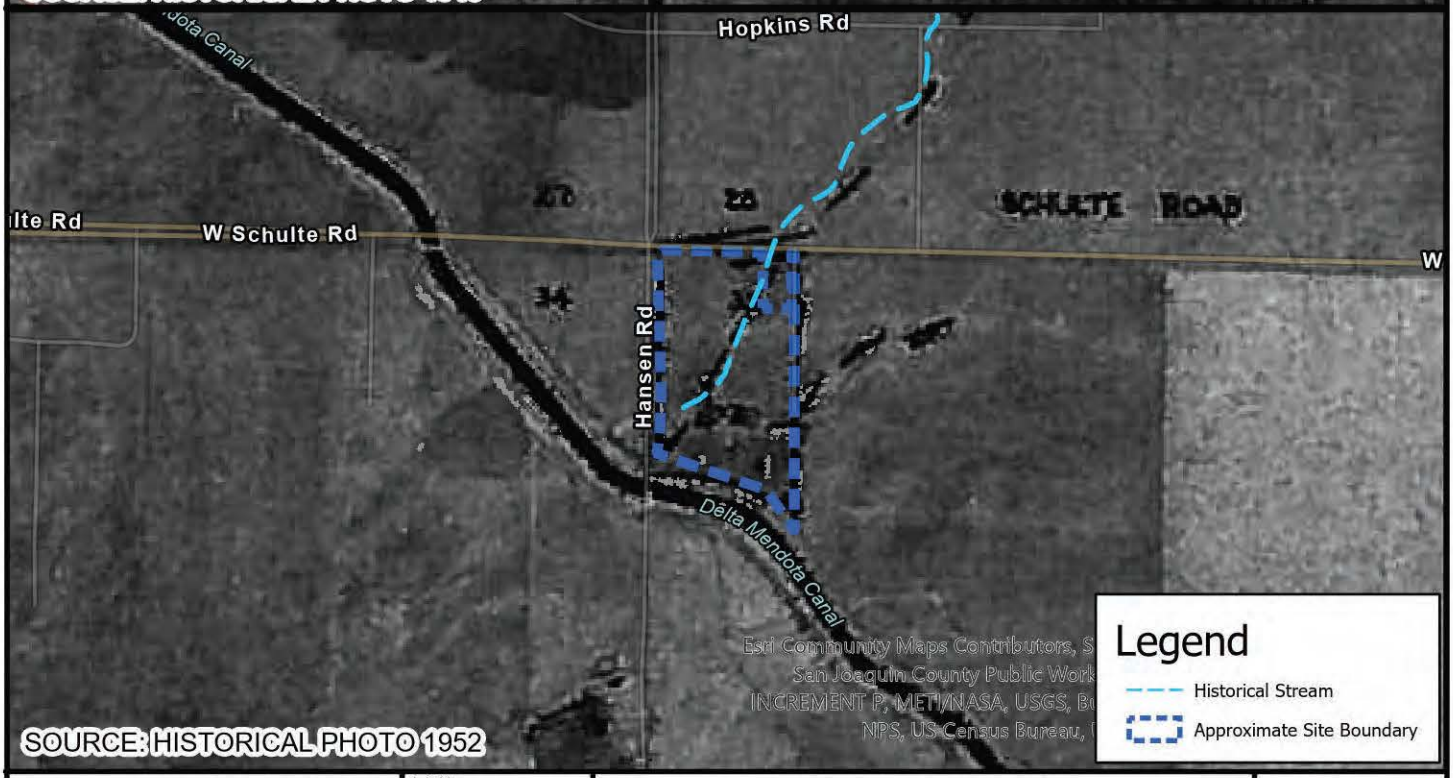

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Job No.	Date	Scale	Drawn	Chk'd
8435	09 Dec 2020	AS SHOWN	JW	RS

HISTORICAL AERIAL MAP
PANATTONI DEVELOPMENT COMPANY, INC.
PROPOSED NEW ONE-STORY WAREHOUSE BUILDING
16286 W. SCHULTE ROAD
TRACY, CALIFORNIA

FIGURE 5

8435_Panattoni.aprx

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SOURCE: HISTORICAL PHOTO 1963

SOURCE: HISTORICAL PHOTO 1975

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Job No.	8435
Date	09 Dec 2020
Scale	AS SHOWN
Drawn	JW
Chk'd	RS

HISTORICAL AERIAL MAP
PANATTONI DEVELOPMENT COMPANY, INC.
PROPOSED NEW ONE-STORY WAREHOUSE BUILDING
16286 W. SCHULTE ROAD
TRACY, CALIFORNIA

FIGURE 6

8435_Panattoni.aprx

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APPENDIX B
LOGS OF BORINGS

CONDOR EARTH TECHNOLOGIES, INC.
209-234-0518
FAX 209-234-0538

LOG OF BORING No. B-1

PROJECT: Proposed New One-Story Warehouse Building **PROJECT NO.:** 8435
CLIENT: Panattoni Development Company, Inc.
PROJECT LOCATION: 16286 W. Schulte Road [APN: 209-280-250], Tracy, CA
LOCATION: South End of Property **ELEVATION:**
DRILLER: V & W Drilling **LOGGED BY:** K. Ledford
DRILLING METHOD: Hollow-Stem Auger **DATE:** 11/17/20
DEPTH TO - WATER> INITIAL: ▽ - **AFTER DRILLING:** ▽ - **CAVING>** ⌭ -

Depth (feet)	Sample Type	USCS	Description	Graphic	Sample No.	Blow Counts	N Value	Moisture Content (%)	Dry Density (pcf)	Plasticity Index	Liquid Limit	% < #200	Misc. Tests
0		CL	Lean clay, dark brown, dry, firm, organics		1, 2, 3	5 5 6	7	11.2	81.6				
		CL	Light brown, firm, dry		4	4 3 3	6						
5		CL-ML	Sharp contact with:										
			Silty clay, light brown, firm		5, 6, 7	6 5 7	8	14.4	91.9				
		ML	Silt, light brown, very stiff		8	6 10 13	23						
10		ML	Moist		9, 10, 11	12 12 13	16	10.4	105.2				
		CL	Grades to:										
			Clay, light brown, very stiff, dry, low plasticity										
15					12	7 11 16	27						
20		SP	Poorly graded sand, light brown, dense, dry		13	14 18 23	41						
			Boring Terminated at 21.5 ft.										
25													
30													
35													

5.0
7.5
11.5
20

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

CONDOR EARTH TECHNOLOGIES, INC.
209-234-0518
FAX 209-234-0538

LOG OF BORING No. B-2

PROJECT: Proposed New One-Story Warehouse Building **PROJECT NO.:** 8435
CLIENT: Panattoni Development Company, Inc.
PROJECT LOCATION: 16286 W. Schulte Road [APN: 209-280-250], Tracy, CA
LOCATION: Center of Property **ELEVATION:** 176 feet
DRILLER: V & W Drilling **LOGGED BY:** K. Ledford
DRILLING METHOD: Hollow-Stem Auger **DATE:** 11/17/20
DEPTH TO - WATER> INITIAL: - **AFTER DRILLING:** - **CAVING>** -

Depth (feet)	Sample Type	USCS	Description	Graphic	Sample No.	Blow Counts	N Value	Moisture Content (%)	Dry Density (pcf)	Plasticity Index	Liquid Limit	% < #200	Misc. Tests
0													
			Lean clay with sand, light brown, dry, stiff, organics		1	3 6 6	12			23	43		
					2, 3, 4	7 14 18	21	15.5	101.9	28	49	79.5	
5		CL	Lean clay with sand, light brown, stiff, dry		5	5 5 6	11					74.3	
		ML	Grades to:		6, 7, 8	13 15 17	21	12.2	92.3				
			Silt, yellowish orange, dry, very stiff, low plasticity										
10		ML	Stiff		9	6 7 8	15						
		SC	Grades to:										
15			Clayey sand, yellowish orange, dry, medium stiff, dry to moist		10	8 11 12	23						
		CL	Grades to:										
20			Lean clay with sand, light brown, very stiff, dry to moist		11	9 12 19	31						
25		CL			12	8 12 13	25						
			Boring Terminated at 26.5 ft.										
30													
35													

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

CONDOR EARTH TECHNOLOGIES, INC.
209-234-0518
FAX 209-234-0538

LOG OF BORING No. B-3

PROJECT: Proposed New One-Story Warehouse Building **PROJECT NO.:** 8435
CLIENT: Panattoni Development Company, Inc.
PROJECT LOCATION: 16286 W. Schulte Road [APN: 209-280-250], Tracy, CA
LOCATION: Next to Schulte Road **ELEVATION:** 172 feet
DRILLER: V & W Drilling **LOGGED BY:** K. Ledford
DRILLING METHOD: Hollow-Stem Auger **DATE:** 11/17/20
DEPTH TO - WATER> INITIAL: - **AFTER DRILLING:** - **CAVING>** -

Depth (feet)	Sample Type	USCS	Description	Graphic	Sample No.	Blow Counts	N Value	Moisture Content (%)	Dry Density (pcf)	Plasticity Index	Liquid Limit	% < #200	Misc. Tests
0		CL	Lean clay with sand, light brown, stiff, dry, organics		1, 2, 3	4 7 11	12						
		ML	Grades to:					11.0	88.6	23	44	76.3	
			1.5										
			Silt, light brown, firm, dry		4	3 3 4	7						
5		SC	5.0		5, 6, 7	3 6 10	10	7.3	83.5				
		SC	Clayey sand, light brown, stiff, dense, moist		8	5 5 8	13						
		CL	Grades to:										
10			9.5										
			Lean clay with sand, light brown, very stiff		9, 10, 11	5 9 20	19						
15		SC	15.0										
			Clayey sand, light brown, dry, medium dense		12	11 9 8	17						
			Boring Terminated at 16.5 ft.										
20													
25													
30													
35													

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

CONDOR EARTH TECHNOLOGIES, INC.
209-234-0518
FAX 209-234-0538

LOG OF BORING No. B-4

PROJECT: Proposed New One-Story Warehouse Building **PROJECT NO.:** 8435
CLIENT: Panattoni Development Company, Inc.
PROJECT LOCATION: 16286 W. Schulte Road [APN: 209-280-250], Tracy, CA
LOCATION: West End of Property **ELEVATION:**
DRILLER: V & W Drilling **LOGGED BY:** K. Ledford
DRILLING METHOD: Hollow-Stem Auger **DATE:** 11/17/20
DEPTH TO - WATER> INITIAL: - **AFTER DRILLING:** - **CAVING>** -

Depth (feet)	Sample Type	USCS	Description	Graphic	Sample No.	Blow Counts	N Value	Moisture Content (%)	Dry Density (pcf)	Plasticity Index	Liquid Limit	% < #200	Misc. Tests
0													
		CL	Sandy lean clay, light brown, dry, crumbly, organics		1	3 4 4	8			17	37		
		ML	Grades to:										
			2.5		2, 3, 4	5 8 13	14	12.1	92.0			57.3	
			Sharp contact at 2.5' Silt, light brown, dry, stiff										
5		ML	Yellowish orange, very stiff		5	6 12 19	31						
		ML	Hard		6, 7, 8	50/6"	>50	10.9	108.0				
10		ML			9	9 16 23	39						
15		CL	Grades to:										
			15.0		10	8 11 16	27						
			Lean clay, light brown, very stiff, moist										
			Boring Terminated at 16.5 ft.										
20													
25													
30													
35													

This information pertains only to this boring and should not be interpreted as being indicitive of the site.

UNIFIED SOIL CLASSIFICATION SYSTEM			
Division		**Group Symbol**	**Group Name**
Coarse-Grained Soils (more than 50 percent retained or the No. 200 sieve)	**Gravel** (% gravel > % sand)	**GW**	Well-graded Gravel (with Sand)
		GW-GM	Well-graded Gravel with Silt (and Sand)
		GW-GC	Well-graded Gravel with Clay (and Sand)
		GP	Poorly graded Gravel (with Sand)
		GP-GM	Poorly graded Gravel with Silt (and Sand)
		GP-GC	Poorly graded Gravel with Clay (and Sand)
		GM	Silty Gravel (with Sand)
		GC	Clayey Gravel (with Sand)
	Sand (% sand ≥ % gravel)	**SW**	Well-graded Sand (with Gravel)
		SW-SM	Well-graded Sand with Silt (and Gravel)
		SW-SC	Well-graded Sand with Clay (and Gravel)
		SP	Poorly graded Sand (with Gravel)
		SP-SM	Poorly graded Sand with Silt (and Gravel)
		SP-SC	Poorly graded Sand with Clay (and Gravel)
		SM	Silty Sand (with Gravel)
		SC	Clayey Sand (with Gravel)
Fine-Grained Soils (50 percent or more passing the No. 200 sieve)	**Silt or Clay** LL < 50	**ML**	Silt (with Sand or Gravel), Sandy Silt (with Gravel), Gravelly Silt (with Sand)
		CL-ML	Silty Clay (with Sand or Gravel), Sandy Silty Clay (with Gravel), Gravelly Silty Clay (with Sand)
		CL	Lean Clay (with Sand or Gravel), Sandy lean Clay (with Gravel), Gravelly lean Clay (with Sand)
		OL	Organic Clay (with Sand or Gravel), Sandy organic Clay (with Gravel), Gravelly organic Clay (with Sand), organic Silt (with Sand or Gravel), Sandy organic Silt (with Gravel), Gravelly organic Silt (with Sand)
	Silt or Clay LL ≥ 50	**MH**	Elastic Silt (with Sand or Gravel), Sandy elastic Silt (with Gravel), Gravelly elastic Silt (with Sand)
		CH	Fat Clay (with Sand or Gravel), Sandy fat Clay (with Gravel), Gravelly fat Clay (with Sand)
		OH	Organic Clay (with Sand or Gravel), Sandy organic Clay (with Gravel), Gravelly organic Clay (with Sand), organic Silt (with Sand or Gravel), Sandy organic Silt (with Gravel), Gravelly organic Silt (with Sand)
Highly Organic Soils		**PT**	Peat and other highly organic soils

Note: Percentages are by dry weight. Soil classifications based on some criteria that are not shown. Group Name items in parentheses may or may not apply, depending on percent of sand or gravel.

Coarse Grained Soil Definitions	
Fraction	**Particle Dimension or U.S. Standard Sieve Size/No.**
Boulders	Above 12”
Cobbles	12” to 3”
Gravel - coarse - fine	 3" to 3/4" 3/4" to No. 4
Sand - coarse - medium - fine	 No. 4 to No. 10 No. 10 to No. 40 No. 40 to No. 200

Split-barrel, 3-inch O.D., 2.43-inch I.D.

Split-barrel, 2.5-inch O.D., 1.93-inch I.D.

Standard Penetration Test (SPT), 2.0-inch O.D., 1.375-inch I.D.

Shelby Tube

Disturbed sample

No recovery

Groundwater level during drilling

Subsequent groundwater level

Note: O.D. = outside diameter I.D. = inside diameter

CONDOR EARTH TECHNOLOGIES, INC.

LOG LEGEND AND SOIL CLASSIFICATION

APPENDIX C
LABORATORY TEST RESULTS

CONDOR EARTH
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Stockton CA 95206
Phone 209.234.0518
FAX 209.234.0538
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Project #: 8435
Client: Pannatoni Development Company, Inc.
Project: 16286 W. Schulte Road, Tracy, CA
Test Date: 11/23/2020
Tested by: E.Carrasco

Natural Dry Density/Unit Weight								
Sample #	B1-3	B1-7	B1-11	B2-4	B2-8	B3-3	B4-4	B4-8
Date	11/23/2020	11/23/2020	11/23/2020	11/23/2020	11/23/2020	11/23/2020	11/23/2020	11/23/2020
Depth (ft)	1.0-1.5	6.0-6.5	11.0-11.5	3.5-4.0	8.5-9.0	1.0-1.5	3.5-4.0	8.5-9.0
Sleeve Diam. (in)	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45
Sleeve Area (sq in)	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
Sample Length (in)	5.8	5.9	6	5.7	6.0	5.9	5.8	6
Volume (cu.in)	27.3	27.7	28.2	26.8	28.2	27.7	27.3	28.2
Volume(cu ft)	0.016	0.016	0.016	0.016	0.016	0.016	0.016	0.016
Gross wt (grms)	970.9	1081.8	1186.1	1199.1	1178.4	1088.4	1049.3	1296.5
Tare wt (grms)	321.2	316.1	326.1	370.8	412.2	372.4	311.9	410.2
Soil wt (grms)	649.7	765.7	860.0	828.3	766.2	716.0	737.4	886.3
Soil wt (lbs)	1.4	1.7	1.9	1.8	1.7	1.6	1.6	2.0
Wet density (pcf)	90.8	105.2	116.2	117.8	103.5	98.4	103.0	119.7
Dry Density(pcf)	81.6	91.9	105.2	101.9	92.3	88.6	92.0	108.0
Notes:	Loose Si Cl	Firm Si Sa	Firm Si Sa	Firm Si Cl	Firm Si Sa	Loose Si Cl	Loose Si Cl	Firm Si Sa

Moisture Content								
Tare #	OH	F	DHT	A-4	L	A-1	K	ANA
Wet wt & Tare (grms)	970.9	1081.8	1186.1	711.2	1178.4	694.3	1049.3	1296.5
Dry wt & Tare (grms)	905.3	985.4	1105.0	665.4	1095.2	662.4	969.9	1209.7
Wt of Water (grms)	65.6	96.4	81.1	45.8	83.2	31.9	79.4	86.8
Wt of Tare (grms)	321.2	316.1	326.1	370.8	412.2	372.4	311.9	410.2
Wt dry Soil (grms)	584.1	669.3	778.9	294.6	683.0	290.0	658.0	799.5
Moisture Content %	11.2	14.4	10.4	15.5	12.2	11.0	12.1	10.9

CONDOR EARTH
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Stockton CA 95206
Phone 209.234.0518
FAX 209.234.0538
www.condorearth.com

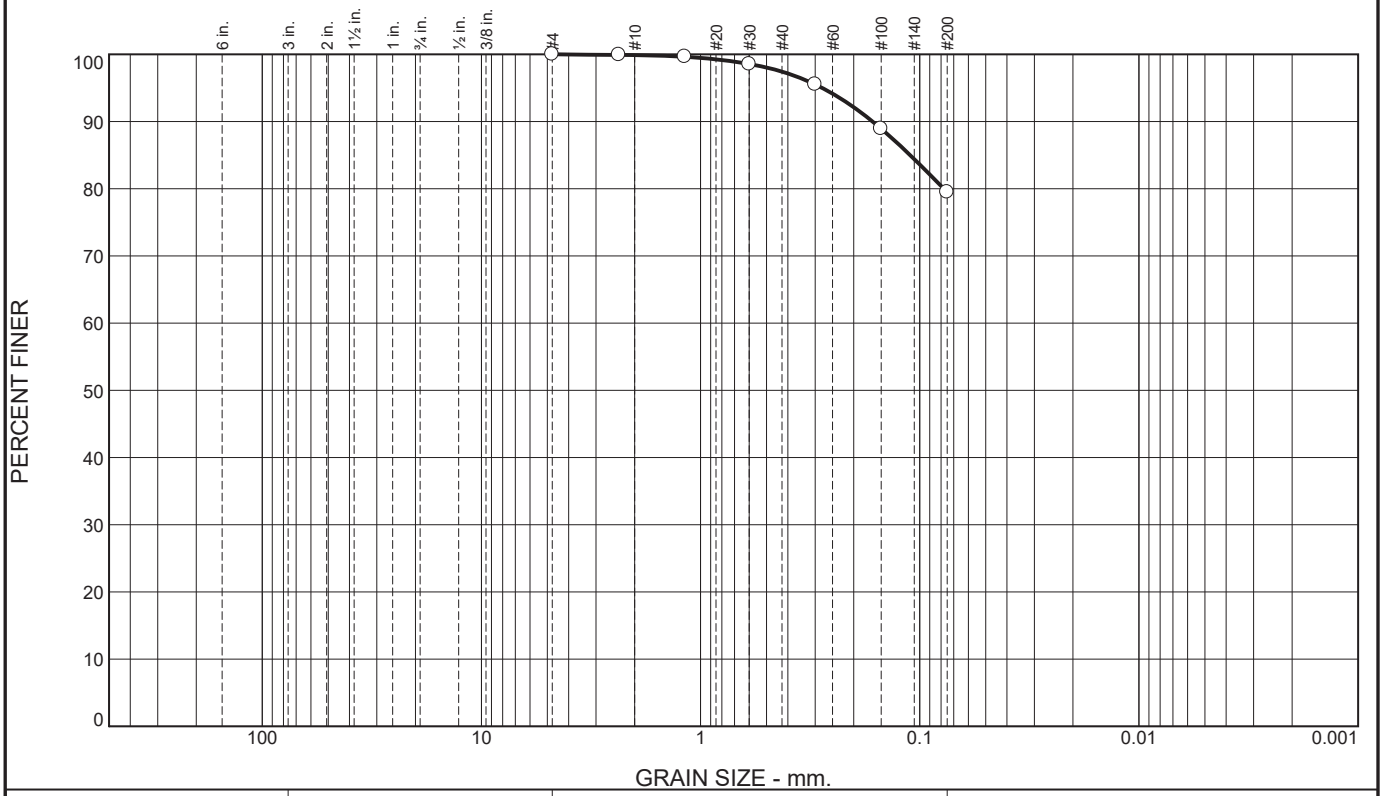
Project #: 8435
Client: Pannatoni Development Company, Inc.
Project: 16286 W. Schulte Road, Tracy, CA
Test Date: 12/11/2020
Tested by: E. Carrasco

Natural Dry Density/Unit Weight								
Sample #	B3-5							
Date	12/11/2020							
Depth (ft)	5.0-5.5							
Sleeve Diam. (in)	2.45							
Sleeve Area (sq in)	4.7							
Sample Length (in)	5.1							
Volume (cu.in)	24.0							
Volume(cu ft)	0.014							
Gross wt (grms)	934.4							
Tare wt (grms)	370.7							
Soil wt (grms)	563.7							
Soil wt (lbs)	1.2							
Wet density (pcf)	89.6							
Dry Density(pcf)	83.5							

Notes: Light Brown Sand with Clay

Moisture Content								
Tare #	A4							
Wet wt & Tare (grms)	934.4							
Dry wt & Tare (grms)	895.9							
Wt of Water (grms)	38.5							
Wt of Tare (grms)	370.7							
Wt dry Soil (grms)	525.2							
Moisture Content %	7.3							

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	2.5	17.9	79.5	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#8	99.9		
#16	99.6		
#30	98.5		
#50	95.5		
#100	88.9		
#200	79.5		

* (no specification provided)

Material Description

Light Brown Lean Clay with Sand

Atterberg Limits

PL= 21 LL= 49 PI= 28

Coefficients

D_{90}= 0.1643 D_{85}= 0.1107 D_{60}=
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-7-6(23)

Remarks

F.M.=0.17

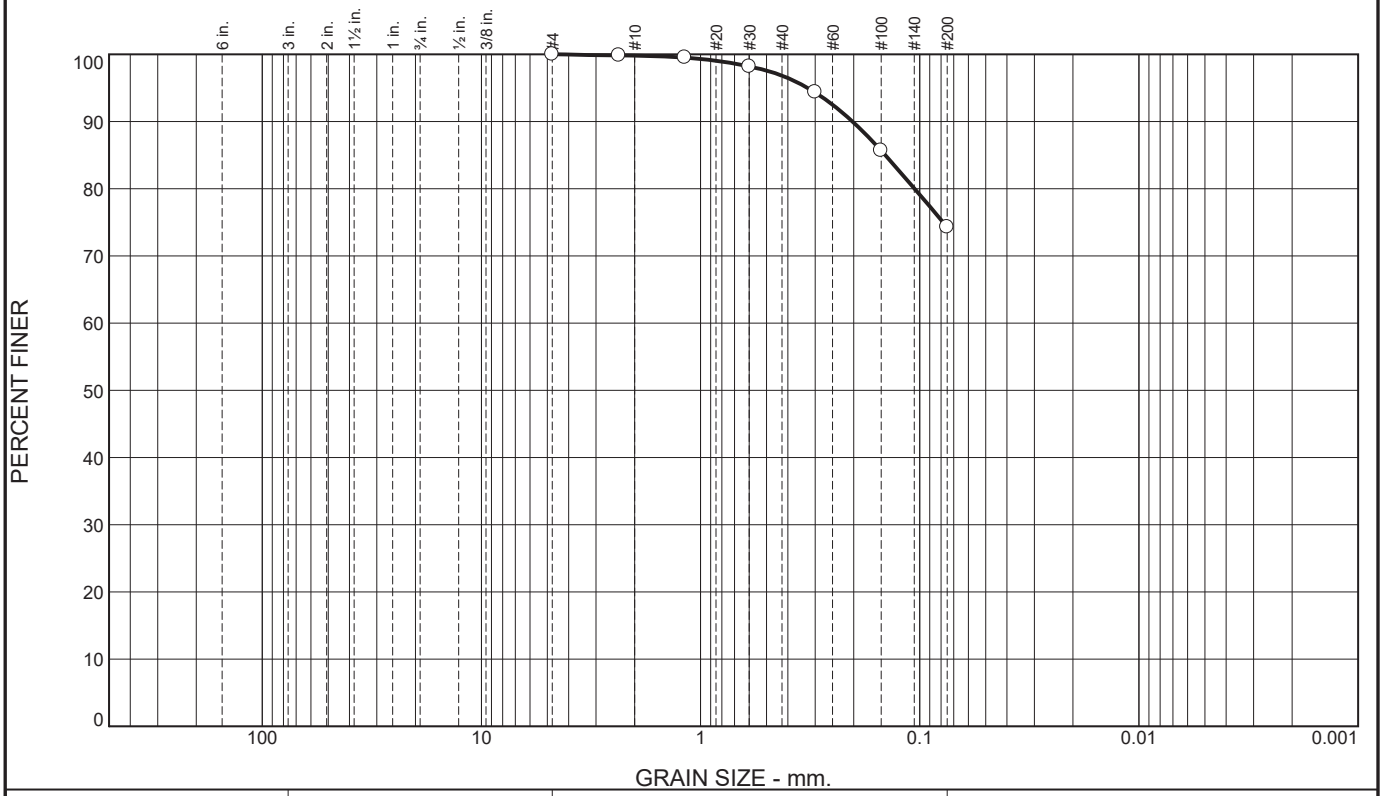
Location: B2-4
Sample Number: PI-1 **Depth:** 3.5'-4.0 **Date:** 11/23/2020

CONDOR EARTH TECHNOLOGIES, INC.
Stockton, California

Client: Pannatoni Development Company, Inc.
Project: 16286 W. Schulte Rd., Tracy, CA
Project No: 8435 **Figure**

Tested By: E. Carrasco **Checked By:** R. Skaggs

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.2	3.0	22.5	74.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#8	99.8		
#16	99.5		
#30	98.2		
#50	94.4		
#100	85.7		
#200	74.3		

* (no specification provided)

Material Description

Brown Sandy Clay

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2034 D_{85}= 0.1438 D_{60}=
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

F.M.=0.22

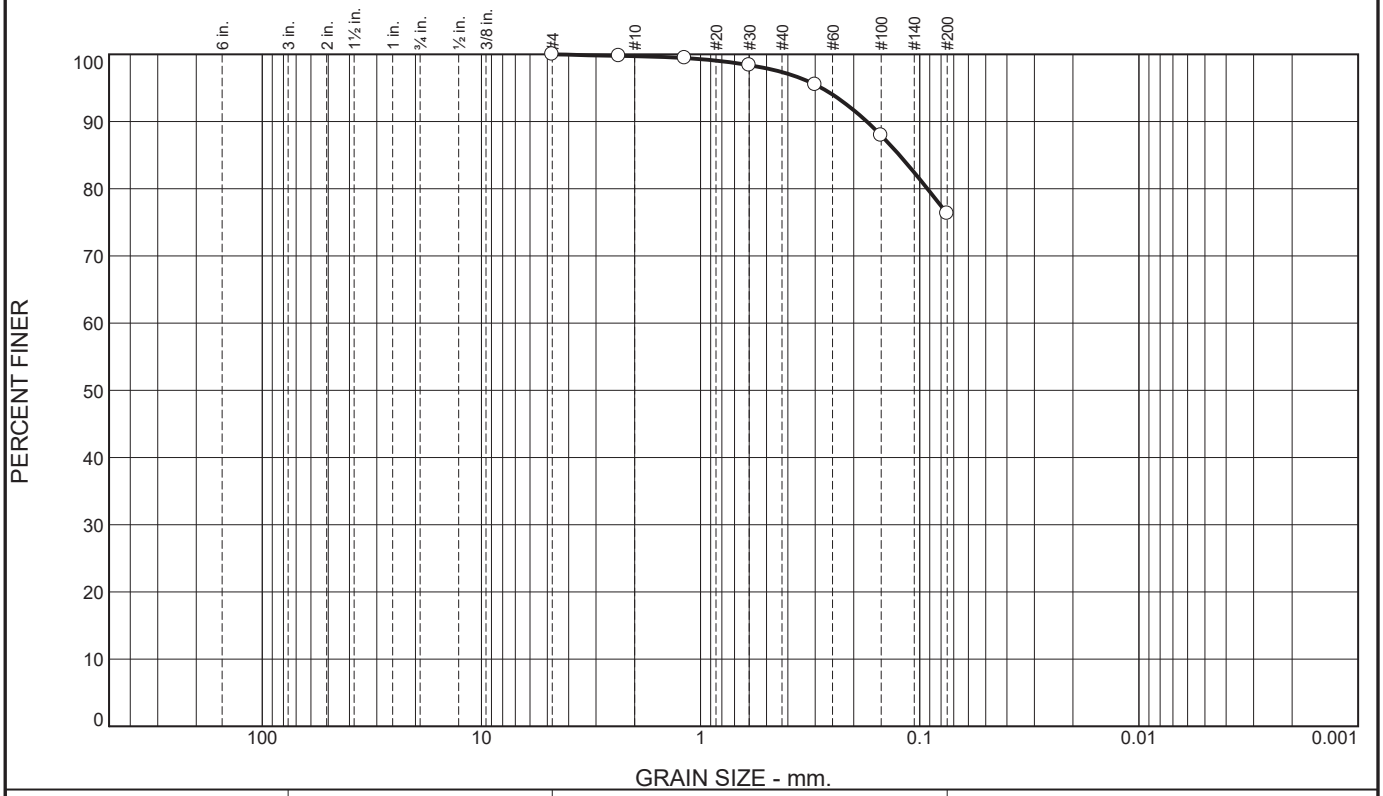
Location: B2-5
Sample Number: SA-2 **Depth:** 5.0'-6.5' **Date:** 11/23/2020

CONDOR EARTH TECHNOLOGIES, INC.
Stockton, California

Client: Pannatoni Development Company, Inc.
Project: 16286 W. Schulte Rd., Tracy, CA
Project No: 8435 **Figure**

Tested By: E. Carrasco **Checked By:** R. Skaggs

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.3	2.3	21.1	76.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#8	99.8		
#16	99.4		
#30	98.4		
#50	95.5		
#100	87.9		
#200	76.3		

* (no specification provided)

Material Description

Light Brown Lean Clay with Sand

Atterberg Limits

PL= 21 LL= 44 PI= 23

Coefficients

D_{90}= 0.1744 D_{85}= 0.1240 D_{60}=
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-7-6(17)

Remarks

F.M.=0.19

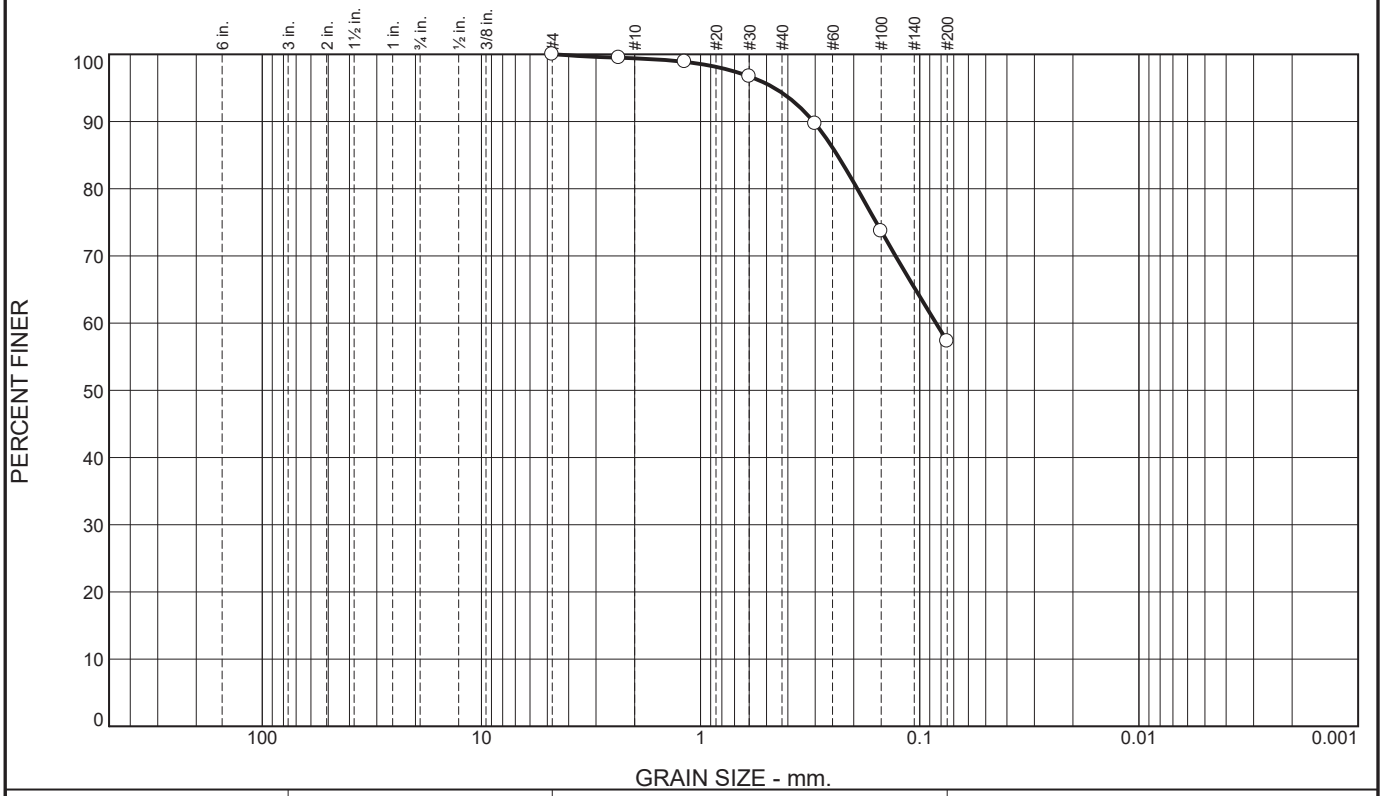
Location: B3-3
Sample Number: SA-3 **Depth:** 1.0'-1.5' **Date:** 11/23/2020

CONDOR EARTH TECHNOLOGIES, INC.
Stockton, California

Client: Pannatoni Development Company, Inc.
Project: 16286 W. Schulte Rd., Tracy, CA
Project No: 8435 **Figure**

Tested By: E. Carrasco **Checked By:** R. Skaggs

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.6	5.1	37.0	57.3	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
#4	100.0		
#8	99.5		
#16	98.9		
#30	96.7		
#50	89.7		
#100	73.7		
#200	57.3		

* (no specification provided)

Material Description

Light Brown Sandy Clay

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.3057 D_{85}= 0.2378 D_{60}= 0.0843
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

F.M.=0.42

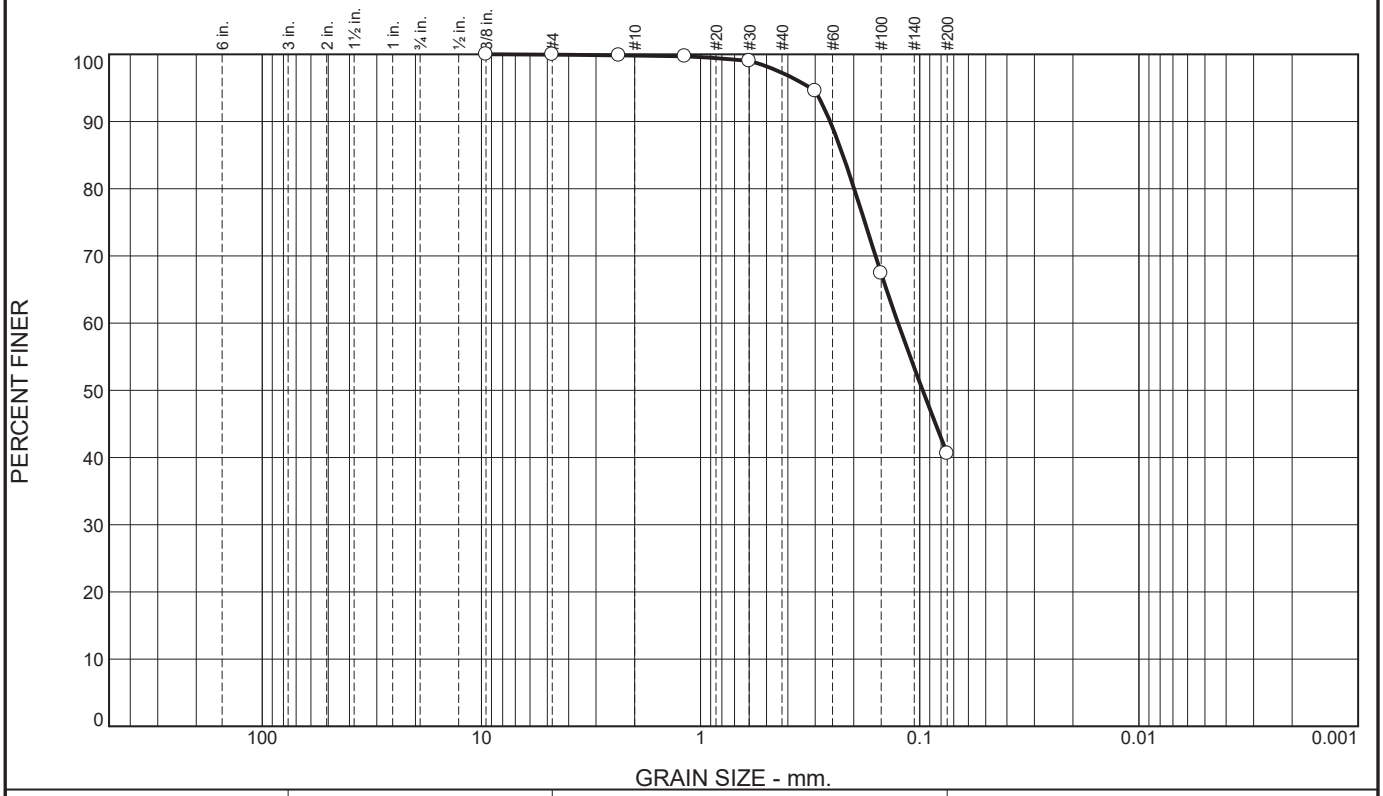
Location: B4-4
Sample Number: SA-4 **Depth:** 3.5'-4.0' **Date:** 11/23/2020

CONDOR EARTH TECHNOLOGIES, INC.
Stockton, California

Client: Pannatoni Development Company, Inc.
Project: 16286 W. Schulte Rd., Tracy, CA
Project No: 8435 **Figure**

Tested By: E. Carrasco **Checked By:** S. Skaggs

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.1	0.1	2.6	56.6	40.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
3/8"	100.0		
#4	99.9		
#8	99.8		
#16	99.7		
#30	99.0		
#50	94.5		
#100	67.4		
#200	40.6		

* (no specification provided)

Material Description

Orange Light Brown Clayey Sand

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 0.2565 D_{85}= 0.2243 D_{60}= 0.1256
D_{50}= 0.0970 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

F.M.=0.40

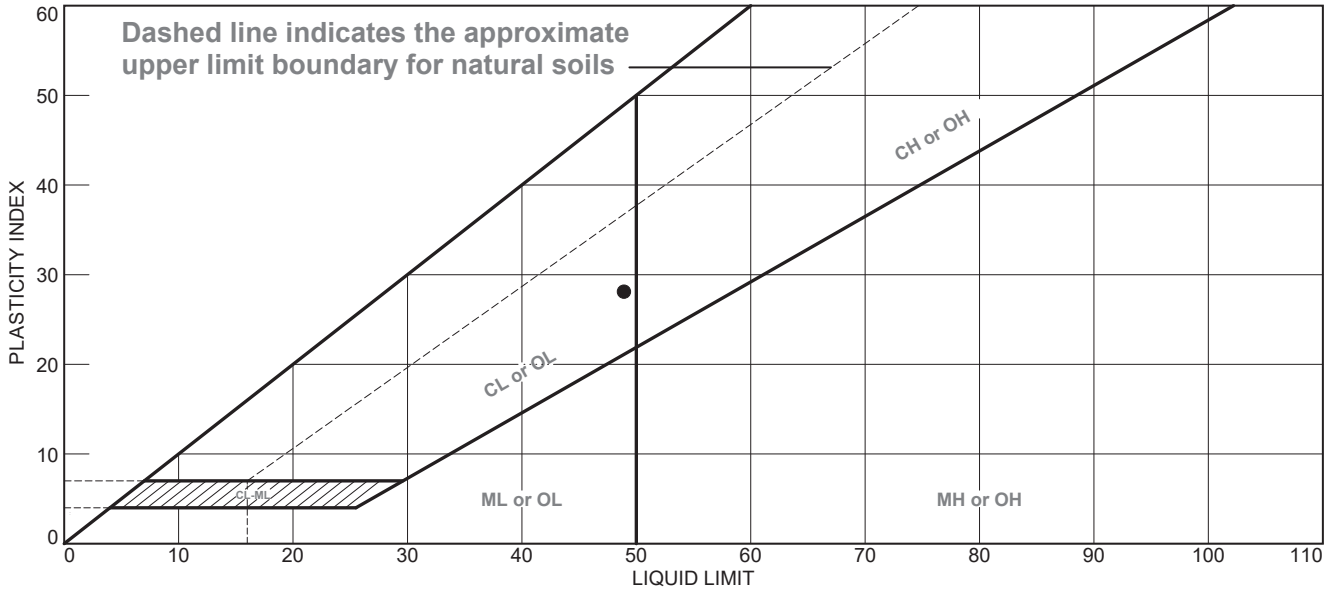
Location: B3-5
Sample Number: SA-5 **Depth:** 5.0'-5.5' **Date:** 12/10/2020

CONDOR EARTH TECHNOLOGIES, INC.
Stockton, California

Client: Pannatoni Development Company, Inc.
Project: 16286 W. Schulte Rd., Tracy, CA
Project No: 8435 **Figure**

Tested By: E. Carrasco **Checked By:** R. Skaggs

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Light Brown Lean Clay with Sand	49	21	28	97.4	79.5	CL

Project No. 8435 **Client:** Pannatoni Development Company, Inc.

Project: 16286 W. Schulte Rd., Tracy, CA

Location: B2-4
Sample Number: PI-1 **Depth:** 3.5'-4.0

CONDOR EARTH TECHNOLOGIES INC.

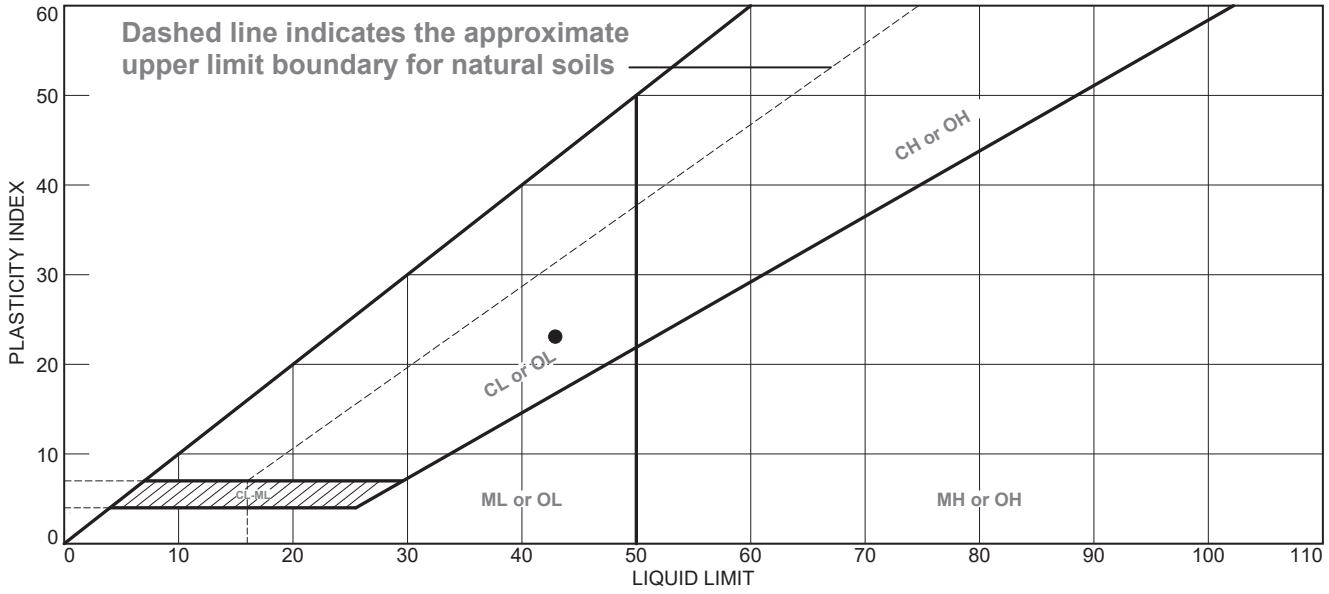
Stockton, California

Remarks:
●11/23/2020

Figure

Tested By: E. Carrasco **Checked By:** R. Skaggs

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Light Brown Lean Clay with Sand	43	20	23			

Project No. 8435 **Client:** Pannatoni Development Company, Inc.

Project: 16286 W. Schulte Rd., Tracy, CA

Location: B2-1
Sample Number: PI-2 **Depth:** 0-1.5'

Remarks:
●11/30/2020

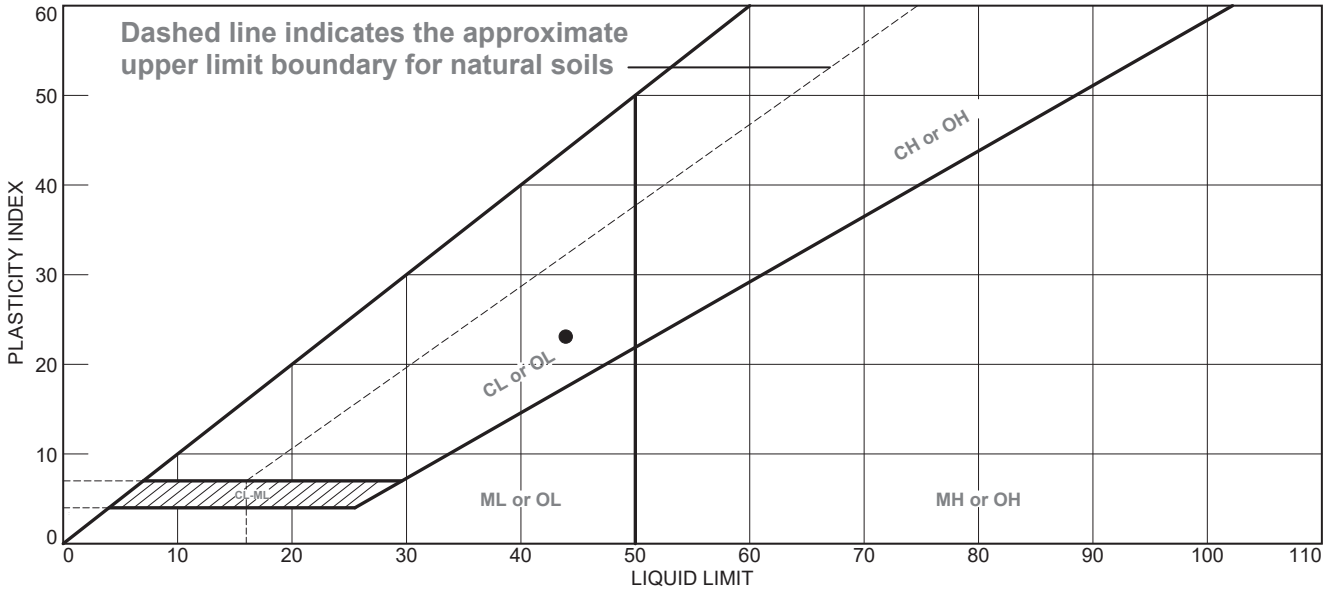
CONDOR EARTH TECHNOLOGIES INC.

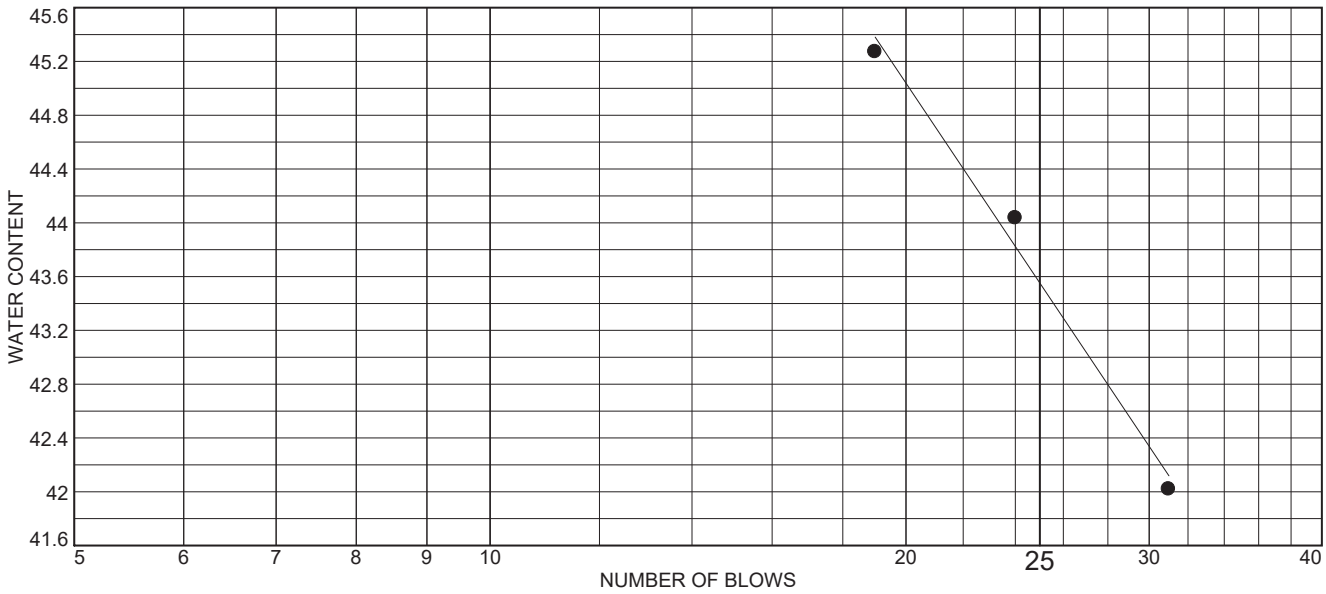
Stockton, California

Figure

Tested By: E. Carrasco **Checked By:** R. Skaggs

LIQUID AND PLASTIC LIMITS TEST REPORT





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Light Brown Lean Clay with Sand	44	21	23	97.4	76.3	CL

Project No. 8435 **Client:** Pannatoni Development Company, Inc.

Project: 16286 W. Schulte Rd., Tracy, CA

Location: B3-3
Sample Number: PI-3 **Depth:** 1.0'-1.5'

Remarks:
●11/23/2020

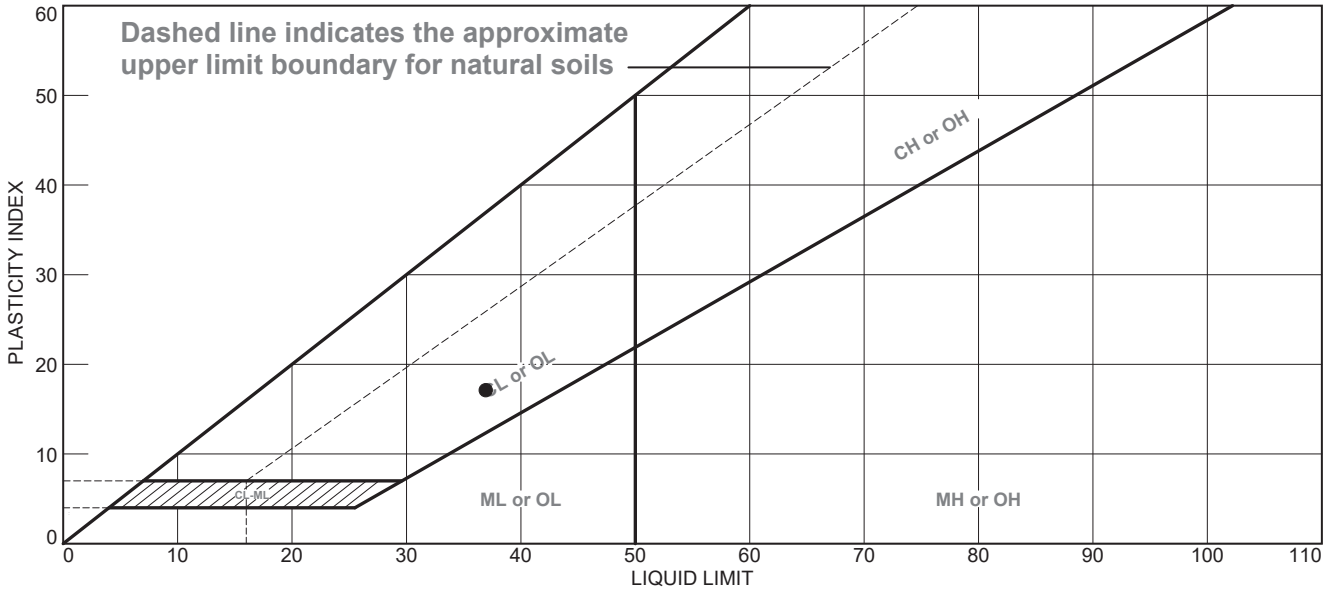
CONDOR EARTH TECHNOLOGIES INC.

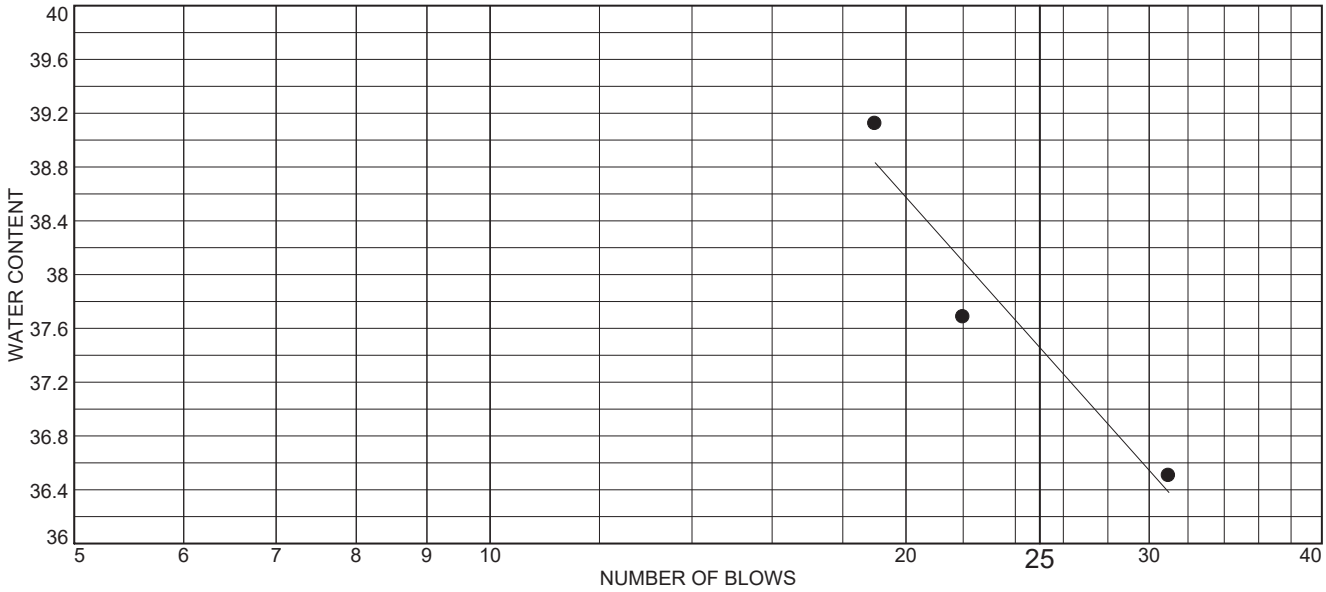
Stockton, California

Figure

Tested By: E. Carrasco **Checked By:** R. Skaggs

LIQUID AND PLASTIC LIMITS TEST REPORT





	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Light Brown Sandy Lean Clay	37	20	17			

Project No. 8435 **Client:** Pannatoni Development Company, Inc.

Project: 16286 W. Schulte Rd., Tracy, CA

Location: B4-1
Sample Number: PI-4 **Depth:** 0-1.5'

Remarks:
●11/23/2020

CONDOR EARTH TECHNOLOGIES INC.

Stockton, California

Figure

Tested By: E. Carrasco **Checked By:** R. Skaggs

CONDOR EARTH TECHNOLOGIES, INC.
21663 Brian Lane, P.O. Box 3905, Sonora, CA 95370 (209) 532-0361/0773(f)
188 Frank West Circle Suite I, Stockton, CA 95206 (209) 234-0518/0538(f)
17857 High School Road, Jamestown, CA 95327 (209) 984-4593/4596(f)
www.condorearth.com

Resistance "R" Value Test Report (California Test 301)

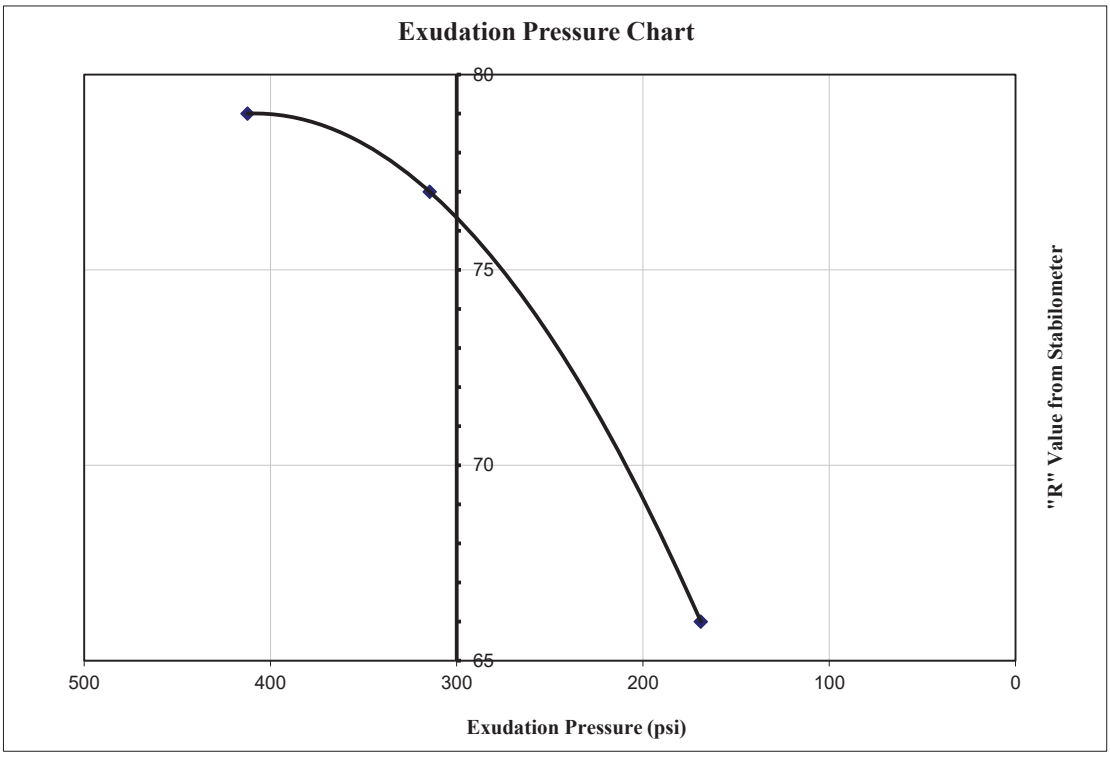
CET Job: 8435

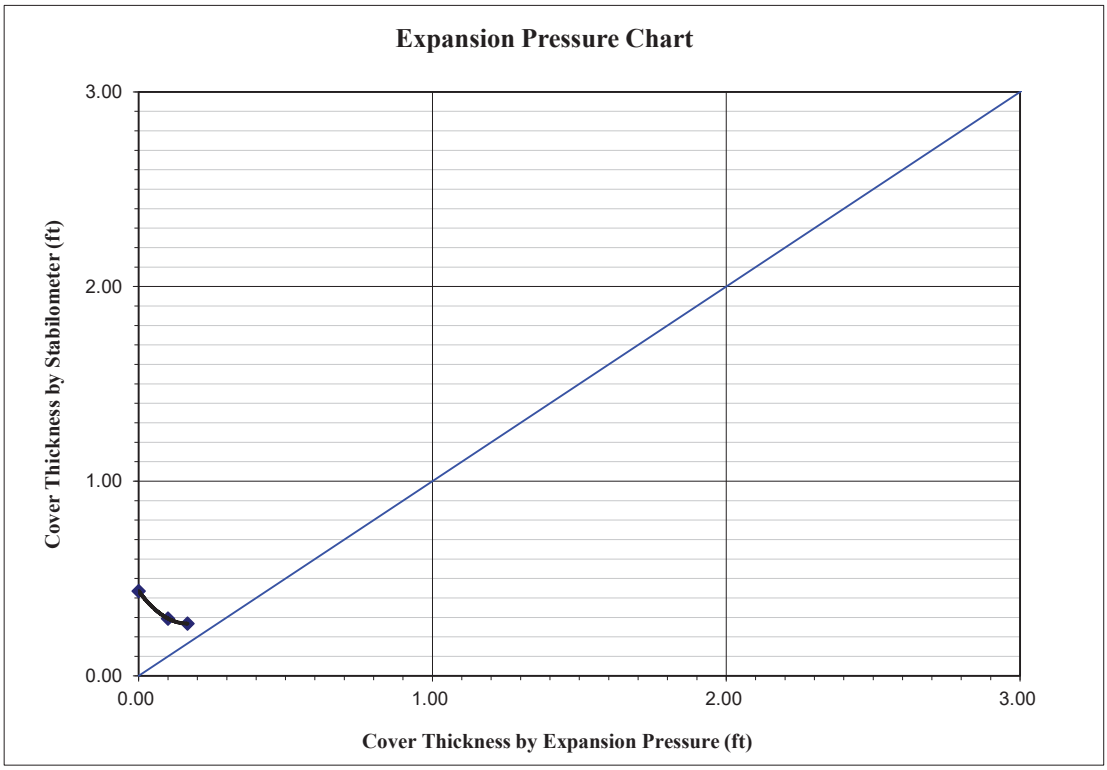
Client: **Pannatoni Development Company, Inc.**
Project: **Proposed New One-Story Warehouse Building**

Sample ID : **RV-1**
Soil Description: **Light Brown Silty Clay with 3% High Calcium Lime added**
Date Received: **November 30, 2020**
Tested by: **E. Carrasco**
Sample Source: **B2**
Depth of Sample: **0.5'-1.5'**

Specimen Number	1	2	3	4
Exudation Pressure (psi)	314.5	412.3	168.9	-
Expansion Pressure (psf)	13.0	21.7	0.0	0.0
Resistance Value, "R"	77.0	79.0	66.0	-
Moisture Content at Test (%)	25.3	24.4	26.5	-
Dry Density at Test (pcf)	98.7	100.3	96.6	-
Initial Moisture Content (%)	19.4			
R-Value by Exudation Pressure =	**76.0**			
R-Value by Expansion Pressure =	**100.0**	Assumed/Given TI = 4.0		
R-Value Design =	**76.0**			

CET Job: 8435
RV-1





California State Certified Laboratory No. 2153

CERCO analytical
1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com

16 December, 2020

Job No. 2011164
Cust. No.12257

Mr. Ron Skaggs
Condor Earth Technologies, Inc.
188 Frank West Circle, Suite I
Stockton, CA 95206

Subject: Project No.: 8435
Project Name: Panattoni-Schulte Rd., Tracy Project
Corrosivity Analysis – ASTM Test Methods

Dear Mr. Skaggs:

Pursuant to your request, CERCO Analytical has analyzed the soil sample submitted on November 19, 2020. Based on the analytical results, this brief corrosivity evaluation is enclosed for your consideration.

Based upon the resistivity measurement, this sample is classified as "corrosive". All buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric coated steel or iron should be properly protected against corrosion depending upon the critical nature of the structure. All buried metallic pressure piping such as ductile iron firewater pipelines should be protected against corrosion.

The chloride ion concentration is 28 mg/kg and determined to be insufficient to attack steel embedded in a concrete mortar coating.

The sulfate ion concentration is 34 mg/kg and is determined to be insufficient to damage reinforced concrete structures and cement mortar-coated steel at this location.

The pH of the soil is 8.42 which does not present corrosion problems for buried iron, steel, mortar-coated steel and reinforced concrete structures.

The redox potential is 280-mV and is indicative of potentially "slightly corrosive" soils resulting from anaerobic soil conditions.

This corrosivity evaluation is based on general corrosion engineering standards and is non-specific in nature. For specific long-term corrosion control design recommendations or consultation, please call *JDH Corrosion Consultants, Inc. at (925) 927-6630.*

We appreciate the opportunity of working with you on this project. If you have any questions, or if you require further information, please do not hesitate to contact us.

Very truly yours,
CERCO ANALYTICAL, INC.

J. Darby Howard, Jr., P.E.
President

JDH/jdl
Enclosure

California State Certified Laboratory No. 2153

CERCO analytical
1100 Willow Pass Court, Suite A
Concord, CA 94520-1006
925 462 2771 Fax. 925 462 2775
www.cercoanalytical.com

Client: Condor Earth Technologies, Inc.
Client's Project No.: 8435
Client's Project Name: Panattoni-Schulte Rd., Tracy Project
Date Samples 17-Nov-20
Date Received: 19-Nov-20
Matrix: Soil
Authorization: Signed Chain of Custody

Date of Report: 16-Dec-2020

Job/Sample No.	Sample I.D.	Redox (mV)	pH	Resistivity (100% Saturation) (ohms-cm)	Chloride (mg/kg)*	Sulfate (mg/kg)*
2011164-001	B-3 @ 2.5-4'	280	8.42	1,600	28	34

Method:	ASTM D1498	ASTM D4972	ASTM G57	ASTM D4327	ASTM D4327
Reporting Limit:	-	-	-	15	15
Date Analyzed:	11-Dec-2020	11-Dec-2020	24-Nov-2020	11-Dec-2020	11-Dec-2020

Cheryl McMillen
Laboratory Director

* Results Reported on "As Received" Basis
N.D. - None Detected

Quality Control Summary - All laboratory quality control parameters were found to be within established limits

Chain of Custody

Page of

1100 Willow Pass Court
Concord, CA 94520-1006
925 462 2771
Fax 925 462 2775
CERCO analytical

Package Job No.		CU#	Schedule / Analyte	Date Sampled	Date Due
				11/17/20	

Full Name Ron Skaggs, VP, Engineering Services
Fax
Phone 209.938.1040
Cell 209.601.2460

Company Condor Earth

Sample Source Panattoni - Schulte Rd., Tracy Project, CET #8435

Lab No.	Sample I.D.	Date	Time	Matrix	Contain.	Size	Preserv.	Qty.	Redox Potential	pH	Sulfate	Chloride	Resistivity - 100% Saturated			Brief Evaluation		
									ANALYSIS									
001	B-3 @ 2.5' - 4'	11/17/20	am	S	Bag	7x10	None	1	X	X	X	X	X			X		

NOTES:

SAMPLE RECEIPT

Temp. at Lab -°C	
Total No. of Containers	
Rec'd Good Cond/Cold	
Conforms to Record	
Sampler	CT

MATRIX

DW - Drinking Water
GW - Ground Water
SW - Surface Water
WW - Waste Water
Water
SL - Sludge
S - Soil

ABBREVIATIONS

HB - Hosebib
PV - Petcock Valve
PT - Pressure Tank
PH - Pump House
RR - Restroom
GL - Glass
PL - Plastic
ST - Sterile

Site Mgr. | Site Mgr.Tel# | Cell#

Site Access

Send results via email to: rskaggs@condorearth.com

Emer. Name 5 *See file | EDT

Agency | Agency # | Fax#

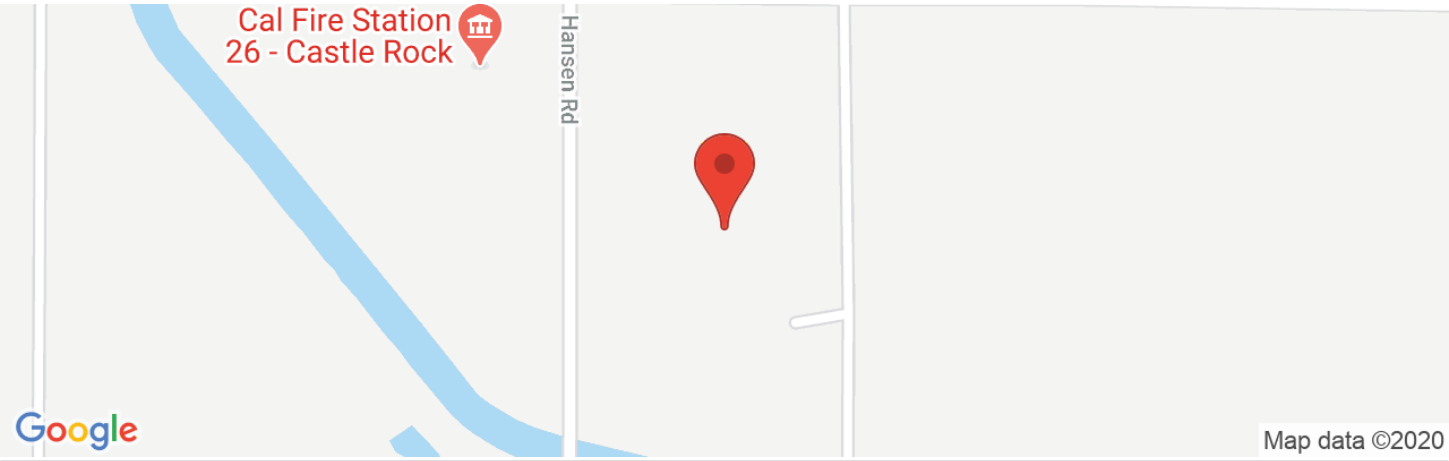
Relinquished By:		Date 11/17/20	Time 9am
Received By:		Date 11/19/20	Time 1340
Relinquished By:		Date	Time
Received By:		Date	Time
Relinquished By:		Date	Time
Received By:		Date	Time

8/6/2009

APPENDIX D
OSHPD U.S. SEISMIC DESIGN MAPS

16286 W Schulte Rd, Tracy, CA 95377, USA

Latitude, Longitude: 37.7200289, -121.511647



Date	12/8/2020, 8:29:38 AM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Default (See Section 11.4.3)

Type	Value	Description
S_S	1.375	MCE_R ground motion. (for 0.2 second period)
S_1	0.47	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.65	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.1	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1.2	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.577	MCE_G peak ground acceleration
F_{PGA}	1.2	Site amplification factor at PGA
PGA_M	0.693	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	1.375	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.5	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.835	Factored deterministic acceleration value. (0.2 second)
S1RT	0.47	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.507	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.745	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.917	Mapped value of the risk coefficient at short periods
C_{R1}	0.927	Mapped value of the risk coefficient at a period of 1 s

APPENDIX E
CONSTRUCTION STANDARDS

This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

Designation: E1643 – 18a

Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs[1]

This standard is issued under the fixed designation E1643; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice covers procedures for selecting, designing, installing, and inspecting flexible, prefabricated sheet membranes in contact with earth or granular fill used as vapor retarders under concrete slabs.

1.2 Conditions subject to frost and either heave or hydrostatic pressure, or both, are beyond the scope of this practice. Vapor retarders are not intended to provide a waterproofing function.

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

E1745 Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs

E1993/E1993M Specification for Bituminous Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs

F710 Practice for Preparing Concrete Floors to Receive Resilient Flooring

2.2 *Other Standard:*[3]

ACI 302.2R–06 Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials

3. Significance and Use

3.1 Vapor retarders provide a method of limiting water vapor transmission and capillary transport of water upward through concrete slabs on grade, which can adversely affect floor finishes and interior humidity levels.

3.2 Adverse impacts include adhesion loss, warping, peeling, and unacceptable appearance of resilient flooring; deterioration of adhesives, ripping or separation of seams, and air bubbles or efflorescence beneath seamed, continuous flooring; damage to flat electrical cable systems, buckling of carpet and carpet tiles, offensive odors, growth of fungi, and undesired increases to interior humidity levels.

4. Manufacturer's Recommendations

4.1 Where inconsistencies occur between this practice and the manufacturer's instructions, conform to the manufacturer's instructions for installation of vapor retarder.

5. Material, Design, and Construction

5.1 See ACI 302.2R–06 for material, design, and construction recommendations.

5.2 See Specifications E1745 and E1993/E1993M for vapor retarder specifications.

5.3 *Vapor Retarder Material Selection*—The following criteria should be considered when selecting a vapor retarder material.

5.3.1 Local building code and regulatory requirements.

5.3.1.1 Comply with local building code and regulatory requirements as a minimum consideration.

[1] This practice is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.21 on Serviceability.

Current edition approved Feb. 15, 2018. Published February 2018. Originally approved in 1994. Last previous edition approved in 2018 as E1643-18. DOI: 10.1520/E1643-18A.

[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Available from American Concrete Institute (ACI), 38800 Country Club Dr., Farmington Hills, MI 48331-3439, http://www.concrete.org.

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5.3.2 The water-vapor permeance of the vapor retarder material.

5.3.2.1 The water vapor permeance of the vapor retarder material shall be at such a rate so that adverse impacts to floor finishes and coatings do not occur

5.3.2.2 Refer to X1.6 for discussion on water vapor transmission rate of vapor retarder.

5.3.2.3 The perm rating determined under these criteria shall supersede that in references 5.2 should this value be less than required under references in 5.2.

5.3.3 The types and amounts of deleterious compounds in the soil on the building site.

5.3.3.1 Review building site soil analyses for deleterious materials and compounds and select a vapor retarder material that will withstand exposure to such deleterious materials or compounds.

5.3.4 The tensile strength and puncture resistance of the vapor retarder material.

5.3.4.1 Select a vapor retarder material capable of withstanding potential construction site damage.

5.3.5 The type of base material on which the vapor retarder is to be installed.

5.3.5.1 Select vapor retarder material capable of withstanding tear or puncture damage due to the type, gradation, and texture of the base material to be installed below the material. Prepare base material to minimize risk of puncture, for example, by rolling or compacting.

5.3.6 The expected exposure of the vapor retarder to ultraviolet rays.

5.3.6.1 Assess expected exposure of the vapor retarder material to ultra violet rays and select a material capable of withstanding such exposure and maintain its capability to perform its intended function.

6. Placement

6.1 Level and compact base material.

6.2 Install vapor retarder material with the longest dimension parallel with the direction of concrete pour.

6.3 Face laps away from the expected direction of the concrete pour whenever possible.

6.4 Extend vapor retarder over footings and seal to foundation wall, grade beam, or slab at an elevation consistent with the top of the slab or terminate at impediments such as water stops or dowels. Seal around penetrations such as utilities and columns in order to create a monolithic membrane between the surface of the slab and moisture sources below the slab as well as at the slab perimeter.

6.5 Lap joints minimum 6 in. (150 mm), or as instructed by the manufacturer, and seal laps in accordance with the manufacturer's recommendations.

6.6 Extend vapor retarder over the tops of pile caps and grade beams to a distance acceptable to the structural engineer and terminate as recommended by the manufacturer.

7. Protection

7.1 Take precautions to protect vapor retarder from damage during installation of reinforcing steel, utilities and concrete.

7.2 Use reinforcing bar supports with base sections that minimize the potential for puncture of the vapor retarder.

7.3 Avoid use of stakes driven through the vapor retarder.

7.4 Refer to ACI 302.2R–06 for discussion of aggregate for protection of vapor retarder, including the risks of installing aggregate fill above a vapor retarder that can act as a reservoir for water.

8. Inspection and Repair

8.1 Inspect and mark all areas of damage and insufficient installation of the vapor retarder sufficiently in advance of concrete placement such that deficiencies may be corrected before concrete is placed.

8.2 Repair damaged areas prior to concrete placement with vapor retarder material lapped and sealed minimum of 6 in. (150 mm) beyond damaged area or as instructed by manufacturer.

9. Keywords

9.1 concrete slabs; vapor; vapor retarder

APPENDIX

(Nonmandatory Information)

X1. PRE-DESIGN CONSIDERATIONS

X1.1 *Planning and Organization of Construction*—To avoid ambiguities, redundancies, conflicts, and omissions, plan the organization and coordination of drawings and specifications so that graphic, dimensional, and descriptive information on subgrade, granular base, vapor retarder, and protection course, if any, appears in only one place. Since the relationship of the subgrade (pad) elevation (usually shown on grading plans) to the rest of the building finish floor elevations and finished site grades is a function of the depth of the granular base and protection course, these dimensions should be shown in only one place. For graphic depictions and dimensions of the granular base and the protection course, the architectural drawings are preferred, but structural drawings are sometimes used. Specifications for sub-base conditions should be in the grading section. Specifications for base, vapor retarder, and protection course should be in the section on concrete, but there are advocates of a separate section in Division 7 for the vapor retarder system. Examination and testing of surface

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conditions should be in appropriate finish sections.

X1.2 *Scheduling*—Determine if slab drying will be on the critical path for schedule occupancy. If so, plan measures to reduce drying times, mitigate moisture, or select floor finish materials not subject to damage by moisture.

X1.3 *Geotechnical*—Ensure that the geotechnical survey includes comprehensive and reliable information on subsurface water table levels and the hydrology of geological strata as well as historical data on surface flooding and hydrology. The survey should also include a list of compounds and concentration levels that are deleterious to plastic materials. The geotechnical study should consider not only the past but also the projected change from ongoing or anticipated development patterns. Soils with comparably higher clay contents are particularly troublesome because the relatively high capillary action within the clay allows moisture to rise under the slab.

X1.4 *Civil*—Ensure that site topographic surveys and grading plans accurately and comprehensively establish surface drainage characteristics for the site and surrounding areas.

X1.5 *Landscape and Irrigation*—Most traditional geotechnical studies do not take into account the post-construction change in ground moisture conditions due to introduced planting and irrigation which is a major problem. For example, in California coastal areas, the average annual rainfall is about 18 in. (457 mm). Turf irrigation amounting to 1.3 in. (33 mm) of water per week over the normal seven-month dry season will increase this to nearly 60 in. (1524 mm) with almost no runoff. It is not enough to assume that irrigation will simply duplicate natural conditions encountered during the wet season. The landscape architect, geotechnical engineer, and civil engineer should closely coordinate design recommendations to avoid moisture problems introduced or exacerbated by landscape planting and irrigation. Once a project is completed, effective irrigation management is instrumental not only in water conservation but also in avoiding potential building-related moisture problems.

X1.6 *Water Vapor Permeance of Vapor Retarder*—In order to prevent moisture damage to the slab on grade, floor covering systems and floor coating systems the water vapor permeance of the vapor retarder material shall be such that accumulation of moisture in the slab through the vapor retarder material does not occur. The vapor pressures of the below grade environment and the interior environment shall be calculated and analyzed. For humidity sensitive interior environments, calculate the effect of vapor diffusion through the vapor retarder, slab on grade and, if applicable, the floor covering or coating on the interior humidity levels. Select a vapor retarder material with a water vapor permeance rating that will maintain interior humidity levels within specified tolerances. The water vapor permeance of flooring material or coating shall be obtained, if available. Calculate the amount of moisture entering the slab through the vapor retarder material. Calculate the amount of moisture that can diffuse through the flooring material. Insure that the water vapor permeance of the vapor retarder material does not allow accumulation of moisture within the slab due to water vapor permeance of the flooring material. Analyze soil temperatures with regard to heat flux through the slab on grade as well as interior temperature and RH levels. Determine if conditions exist for a dew point within the slab. If such conditions can potentially exist, analyze the amount of moisture accumulation within the slab versus the drying potential of the slab through its top surface, and if applicable, through the floor covering system to determine if prolonged and detrimental wetting of the slab will occur. If so, incorporate measures to eliminate conditions for a dew point to occur. One such measure is installing an insulation layer directly below the slab and vapor retarder.

X1.7 *Moisture Entrapment Due to Rainfall or Ground Water Intrusion*—Moisture entrapment can occur beneath slabs when the vapor retarder is placed below a fill course or vapor retarder protection layer, and the fill material takes on water from rainfall, saw-cutting, curing, cleaning or other sources. If a fill course or vapor retarder protection layer is used, the extent of moisture entrapment can be reduced by scheduling concrete placements before rainfall and by sealing any entry points for water in the completed slab. If a fill course or vapor retarder protection layer is used, the vapor retarder must be turned up at the perimeter of the slab to protect the fill course from lateral entrance of moisture.

X1.8 Ensure there is no water accumulation on top of the vapor retarder prior to placing of concrete.

X1.9 *Moisture Conditions of Slab*—Following placement of the concrete and acclimatization of the building, comply with Practice F710 and floor covering manufacturer's recommendations for any specified tests for moisture emissions from or moisture content of the slab on grade. Review written report(s) on test results prior to the installation of the floor covering or coating installation. Obtain written approval of acceptable slab conditions from the floor covering manufacturer and project design professional. See also ACI 302.2R–06.

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Designation: E1745 – 17

Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs[1]

This standard is issued under the fixed designation E1745; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers flexible, preformed sheet membrane materials to be used as vapor retarders in contact with soil or granular fill under concrete slabs.

1.1.1 This specification does not cover bituminous vapor retarders. See Specification E1993/E1993M for information on bituminous vapor retarders.

1.2 The specified tests are conducted on new materials and materials that have been conditioned or exposed to simulate potential service conditions.

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

C168 Terminology Relating to Thermal Insulation

D828 Test Method for Tensile Properties of Paper and Paperboard Using Constant-Rate-of-Elongation Apparatus

D882 Test Method for Tensile Properties of Thin Plastic Sheeting

D1709 Test Methods for Impact Resistance of Plastic Film by the Free-Falling Dart Method

E96/E96M Test Methods for Water Vapor Transmission of Materials

E154/E154M Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover

E631 Terminology of Building Constructions

E1643 Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs

E1993/E1993M Specification for Bituminous Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs

F1249 Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, see Terminologies C168 and E631.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *perm, n*—the time rate of water vapor migration through a material or a construction of one grain per hour, square foot, inch of mercury pressure difference.

3.2.1.1 *Discussion*—If a specification states that a one perm limit is required, the same flow rate will be obtained from the following relationships:

1 perm = 1 grain/h · ft^2 in. · Hg (inch·pound)
= 57.2 10^{-12} kg/(Pa · s · m^2) (SI fundamental units)
= 57.2 ng/(Pa · s · m^2) (SI frequently used)
= 0.66 g/24 h · m^2 · mm Hg (SI has been used but is now obsolete)

3.2.2 *vapor retarder, n*—(formerly vapor barrier) a material or construction that impedes the transmission of water vapor under specified conditions.

3.2.3 *water vapor permeability, n*—a property of material which is water vapor permeance through unit thickness. Since materials that provide resistance to vapor flow are never used in unit thickness, the preferred evaluation of both materials and constructions is the permeance.

3.2.4 *water-vapor permeance, n*—the time rate of water vapor flow through unit area of the known thickness of a flat material or a construction normal to two specific parallel surfaces induced by unit vapor pressure difference between the two surfaces under specific temperature and humidity conditions. See *perm*.

[1] This specification is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.21 on Serviceability.

Current edition approved May 1, 2017. Published May 2017. Originally approved in 1996. Last previous edition approved in 2011 as E1745-11. DOI: 10.1520/E1745-17.

[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

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4. Classification

4.1 Materials shall be specified to conform to one of these three classes: A, B, or C, or specific requirements shall be specified in one or more of the properties listed in Table 1.

5. Specifying Information

5.1 Specifications for materials shall include the following:

5.1.1 This specification number.

5.1.2 Class A, B, or C, or alternatively, specific performance requirements for each of the properties listed in Table 1.

5.1.3 Performance requirements, if any, for special conditions (see 7.4).

5.1.4 Execution or installation requirements with reference to Practice E1643.

6. Lap Sealing

6.1 The producer shall provide instructions for lap sealing, including minimum width of lap, method of sealing, and either supply or specify suitable products for lap sealing.

7. Properties

7.1 *Permeance*—Material shall conform to the requirements listed in Table 1 under the following conditions: when tested in accordance with Test Methods E154/E154M, Section 7 (based on Test Methods E96/E96M), or Test Method F1249, test temperature shall be 73.4 °F (23 °C) and test humidity shall be 50 ± 2 %.

7.1.1 *Permeance of New Material*—No conditioning.

7.1.2 *Permeance after Wetting, Drying, and Soaking*—Refer to Test Methods E154/E154M, Section 8.

7.1.3 *Permeance after Heat Conditioning*—Refer to Test Methods E154/E154M, Section 11.

7.1.4 *Permeance after Low Temperature Conditioning*—Refer to Test Methods E154/E154M, Section 12.

7.1.5 *Permeance after Soil Organism Exposure*—Refer to Test Methods E154/E154M, Section 13.

7.2 *Tensile Strength of New Material*—Refer to Test Methods E154/E154M, Section 9. (The apparatus shall be that described in either Test Methods D828 or D882.)

7.3 *Resistance to Puncture of New Material*—Refer to Test Methods D1709, Test Method B.

7.4 *Special Conditions*—When specifically required by the buyer, due to special conditions which dictate properties of fire resistivity, prolonged exposure to sunlight, or resistance to deterioration from hydrocarbons, the material shall conform to the following:

7.4.1 *Flame Spread*[3]—Refer to Test Methods E154/E154M, Section 16, as follows:

Class A	0–25
Class B	26–75
Class C	76–200

7.4.2 *Permeance after Soil Poison Petroleum Vehicle Exposure*—Refer to Test Methods E154/E154M, Section 14 (based on Test Methods E96/E96M), or Test Method F1249. Conform to permeance requirements in Table 1.

7.4.3 *Permeance after Exposure to Ultraviolet Light*—Refer to Test Methods E154/E154M, Section 15. Conform to permeance requirements in Table 1.

8. Sampling

8.1 For each complete set of tests, obtain all samples from a single production roll of material. Samples shall be representative of the material being sold to the end user.

9. Certification

9.1 When specified in the purchase order or contract, the purchaser shall be furnished with certification that samples representing each lot have been either tested or inspected as directed in this specification and that requirements have been met.

9.2 Upon the request of the purchaser in the contract or order, the certification of an independent third party (testing laboratory) indicating conformance to the requirements of this specification may be considered.

[3] The classes and values shown are distinct from the performance classes listed in Table 1.

TABLE 1 Properties for Specified Performance Classes[A]

	Class A		Class B		Class C	
	IP Units	SI Units	IP Units	SI Units	IP Units	SI Units
Water vapor permeance (Test Methods E154/E154M, Section 7, or Test Method F1249), max	0.1 perms (0.1 gr/[h·ft²·in.·Hg])	(6 ng/[s·m²·Pa])	0.1 perms (0.1 gr/[h·ft²·in·Hg])	(6 ng/[s·m²·Pa])	0.1 perms (0.1 gr/[h·ft²·in.·Hg])	(6 ng/[s·m²·Pa])
Tensile strength (Test Methods E154/E154M, Section 9),[B] min	45.0 lbf/in.	7.9 kN/m	30.0 lbf/in.	5.3 kN/m	13.6 lbf/in.	2.4 kN/m
Puncture resistance (Test Methods D1709, Test Method B), min	no inch-pound equivalent used	2200 g	no inch-pound equivalent used	1700 g	no inch-pound equivalent used	475 g

[A] Refer to Practice E1643 for assessing suitability of use based on reported perm rating of material.
[B] Tensile strength per unit width for the total sample thickness is used instead of tensile strength per unit area because vapor retarder materials are never used in unit thickness.

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9.3 When specified in the purchase order or contract, the producer or supplier shall furnish a summary of the test procedures listed in Table 1, providing for each test the laboratory that performed or witnessed the test, the date of the most recent test, and the test results.

9.4 When specified in the purchase order or contract, the producer or supplier shall furnish copies of the laboratory reports for each of the tests listed in Table 1.

10. Keywords

10.1 concrete; concrete slab; floor; plastic; vapor retarder

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