FILIOS/DOBLER ANNEXATION AND DEVELOPMENT PROJECT

DRAFT
ENVIRONMENTAL IMPACT REPORT
(State Clearinghouse No. 2010072043)

June 2011

Prepared for:

City of Tracy
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A Notice of Preparation and Public Comments
B Air Quality and Greenhouse Gas Emissions Data
C Biological Resource Information
D Cultural Resources Data
E Existing Hazardous Materials Conditions Assessment
F Noise Data
G Traffic Technical Appendix

1.0 INTRODUCTION

1.1 BACKGROUND

This Draft Environmental Impact Report (EIR) has been prepared to analyze the potential environmental effects that may result from the proposed Filios/Dobler Annexation and Development Project (Project) in the City of Tracy, San Joaquin County, California, pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.), and the *CEQA Guidelines* (California Code of Regulations [CCR] Title 14, Section 15000 et seq.).

CEQA requires California public agencies to consider the environmental consequences of projects for which they have discretionary authority. The public agency with the principal responsibility for carrying out or approving a project is the "lead agency." CEQA requires the lead agency to prepare an EIR if there is substantial evidence, in light of the whole record, that a project may have a significant effect on the environment. A significant effect is defined in CEQA as a substantial adverse physical change in the environment. The City of Tracy (City) is the lead agency for the proposed Project.

The Project proposes to annex approximately 43 acres of unincorporated land to the City; amend the City General Plan land use designation of the Project site from Urban Reserve 2 (UR 2) to Commercial; amend the I-205 Corridor Specific Plan to add the Project site to the Specific Plan area, designate it General Commercial (GC) and amend the freeway sign height and size standards; and Prezone the Project site Planned Unit Development (PUD). In addition, the Project includes a maximum of 466,000 square feet of commercial/office uses to be built on the Project site.

The Project site is located within San Joaquin County (County), immediately adjacent to the northwestern boundary of the City. The City is located at the northwestern edge of the San Joaquin Valley, 60 miles east of San Francisco and 68 miles south of Sacramento. The triangular shaped site is bounded by Grant Line Road to the north, the Union Pacific Railroad (UPRR) line and Byron Road to the southwest, and the Tracy Marketplace Shopping Center to the east. Refer to Chapter 3 (Project Description) for additional detail regarding the proposed Project.

1.2 PURPOSE OF THE EIR

An EIR is an informational document that is written to inform public agency decision-makers and the public of the significant environmental effects of a proposed project. The purpose of an EIR is to:

- Analyze the environmental effects of a proposed project
- Indicate mitigation measures to avoid or minimize the potentially significant environmental effects of a proposed project
- Identify alternatives to the project that would avoid or substantially lessen the significant effects of the project

Environmental effects that are addressed in an EIR consist of potentially significant, adverse effects of the project across a full spectrum of environmental topics; growth-inducing effects of the project; and significant cumulative effects of past, present and reasonably anticipated future projects.

It is not the purpose of an EIR to recommend either approval or denial of a project. Rather, EIRs provide relevant information that will assist decision-makers in their decision to approve or deny a project. The lead agency may choose to approve a project that would result in significant environmental effects that

cannot be mitigated. If this occurs, the lead agency is required to adopt a "Statement of Overriding Considerations."

1.3 SCOPE OF THE EIR

The scope of this EIR is limited to specific issues and concerns identified as causing potentially significant effects on the environment. To streamline the review of projects and reduce the need to prepare repetitive environmental studies, Section 15183 of the *CEQA Guidelines* mandates that projects that are consistent with the development density established by existing zoning, community plan and general plan policies for which an EIR was certified do not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects peculiar to the project or its site. The proposed Project would be consistent with the development density established in the City of Tracy General Plan (adopted February 1, 2011). Therefore, this EIR has been prepared to address project-specific impacts that were not analyzed in the City of Tracy General Plan EIR (General Plan EIR) certified by the City Council on February 1, 2011. As allowed by Section 15152 of the *CEQA Guidelines,* this EIR tiers off of the General Plan EIR, a copy of which is available at the City of Tracy, Development and Engineering Services Department. The General Plan EIR is incorporated herein by reference.

1.3.1 INITIAL STUDY AND NOTICE OF PREPARATION

To determine the scope of the EIR, the City prepared and distributed a Notice of Preparation (NOP), dated July 14, 2010, for the proposed Project. An NOP is a document that is sent by the lead agency to notify public agencies and interested parties that the lead agency plans to prepare an EIR for a proposed project. The purpose of an NOP is to solicit comments from public agencies and interested parties, and to identify specific environmental issues that should be considered in the EIR.

The NOP identified the following issues to be addressed in this EIR:

- Land Use and Planning
- Aesthetics
- Agricultural Resources
- Air Quality
- Greenhouse Gas Emissions
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Public Services, Utilities and Service Systems
- Transportation/Traffic

The NOP was sent via certified mail to trustee and responsible agencies, and the State Clearinghouse for a 30-day public review period, extending from July 15 to August 16, 2010. The NOP and written

comments received from public agencies and interested parties are contained in Appendix A (Notice of Preparation and Public Comments).

1.3.2 PUBLIC REVIEW AND SCOPING MEETING

On August 11, 2010, a public scoping meeting was held. A public notice of the meeting was sent to members of the public and interested parties. At the meeting, members of the public had the opportunity to identify issues of special concern and to suggest additional issues to be considered in the EIR. Minutes from the meeting are included in Appendix A.

1.3.3 CONTENTS OF DRAFT EIR

All of the environmental issues listed in the NOP were determined to have potentially significant impacts and the issues identified during the public review period for inclusion in the EIR have been incorporated into this EIR. For each environmental issue, the EIR describes the environmental setting (current conditions), then discusses and analyzes the potential related impacts that could be caused by project implementation.

For each potentially significant impact, the EIR specifies ways to mitigate the impact, including implementation of one or more of the following mitigation measures:

- Existing goals, objectives, policies and programs of the General Plan
- Applicable mitigation measures of the Draft and Final EIR for the General Plan
- Project-specific mitigation measures designed to mitigate one or more project impacts, as described in this EIR

The project sponsor must implement all mitigation measures identified in the EIR or their environmental equivalent. "Environmental equivalent" means any mitigation measure and/or timing thereof, subject to the approval of the City, that, when compared to the mitigation measure, would have the same or superior result and would have the same or superior effect on the environment. The Development and Engineering Services Department, in conjunction with appropriate agencies or other City departments, would determine the adequacy of any proposed environmental equivalent. Any costs associated with information or environmental documentation required to determine environmental equivalency would be borne by the project sponsor. As with other mitigation measures, the City would ensure compliance with an environmental equivalent through the mitigation monitoring process.

1.4 ORGANIZATION OF THE EIR

The EIR has been organized into the following sections:

Chapter 1, Introduction: Provides an introduction and overview that describes the purpose of the EIR, summarizes the EIR review and certification process, identifies key areas of environmental concern, and outlines the EIR process.

Chapter 2, Executive Summary: Summarizes the proposed Project, required actions by the City and other agencies, environmental setting, potential impacts of the project, mitigation measures identified to reduce or eliminate significant impacts, and alternatives to the proposed project.

Chapter 3, Project Description: Presents Project objectives, describes the site location and characteristics, provides a detailed description of the proposed Project and specifies the intended use of the EIR, including the actions required to implement the Project.

Chapter 4, Environmental Analysis: Describes the existing conditions, analyzes the proposed Project's potential environmental impacts and specifies measures to mitigate the identified impacts. Also describes cumulative impacts.

Chapter 5, Growth Inducing and Cumulative Impacts: Describes growth-inducing and cumulative impacts resulting from implementation of the Project.

Chapter 6, Alternatives: Evaluates a reasonable range of Project options (alternative ways of meeting the Project objectives) that would reduce or avoid environmental impacts, including the No Project Alternative.

Chapter 7, Other CEQA Considerations: Discusses irreversible or irretrievable commitments of resources and significant unavoidable impacts.

Chapter 8, Report Preparation Personnel: Lists personnel who prepared the EIR, including City staff and consultants.

Chapter 9, References: Lists sources of information used in the preparation of the EIR.

Appendices: Includes the NOP for the EIR, comments received in response to the NOP and the City's scoping activities, and background technical studies.

1.5 TERMINOLOGY USED IN THE EIR

This EIR uses the following terminology to denote the significance of environmental impacts of the proposed project:

- A "beneficial impact" is an environmental impact that would be a positive contribution or improvement to the physical conditions that exist in the area affected by the Project.
- An "environmental impact" is a direct or indirect effect that would be caused by the Project that constitutes a physical change to the existing natural or man-made conditions within the area affected by the Project.
- "No impact" is the lack of any environmental impact, and no mitigation is required.
- A "less than significant" impact or an impact that is "not significant" is an environmental impact that would cause no substantial adverse change in the environment and, as such, requires no mitigation.
- A "potentially significant" or "significant" impact is an environmental impact that could or would cause a substantial adverse change in the environment. In such a case, an impact has been identified that, although potentially significant, can be avoided or reduced to less than significant levels through mitigation. Such mitigation may include Project design features that have been incorporated into the Project or existing requirements, such as municipal code or ordinance, engineering and design requirements (e.g., California Building Code), and standard regulations set by regional, state and federal agencies. A further description of mitigation measures is provided below.

- A "significant and unavoidable" impact is an environmental impact that could or would cause a substantial adverse change in the environment and cannot be avoided if the Project is implemented; mitigation may be recommended, but would not reduce the impact to a less than significant level.
- "Mitigation measures" are defined in *CEQA Guidelines* Section 15370 as:
  - Avoiding the impact altogether by not taking a certain action or parts of an action
  - Minimizing the impact by limiting the degree or magnitude of the action and its implementation
  - Rectifying the impact by repairing, rehabilitating or restoring the affected environment
  - Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action
  - Compensating for the impact by replacing or providing substitute resources or environments

1.6 EFFECTS FOUND NOT TO BE SIGNIFICANT

Through the EIR scoping process, the City determined that the Project would have no significant impact on certain environmental issues and so has excluded these issues from further analysis in this EIR. The issues excluded and the reasons for excluding them are described below.

1.6.1 POPULATION AND HOUSING

The proposed Project would not induce substantial population growth in the area, either directly or indirectly. No new housing would be constructed. Although three existing single-family homes would be displaced by the Project, existing housing within the City is available to accommodate the displaced residents. It is anticipated that almost all jobs that would be created by the proposed Project would be filled by the existing labor force in the general area, and no new housing would be required to serve this labor force. The expansion of infrastructure that would be required would not lead to population growth, as no new roads or other infrastructure would be constructed that would open previously undeveloped areas to development. Therefore, no further analysis is necessary.

1.6.2 RECREATION

The proposed Project would not have any reasonably foreseeable significant effect on parks or other recreational facilities. It is anticipated that almost all jobs would be filled by the existing local labor force. Some employees and shoppers might be drawn to visit nearby parks. However, such increased use is speculative, and any increased incidental use that might be created by the Project would not result in substantial physical deterioration of parks or recreational facilities, or accelerate such deterioration. The Project does not include recreational facilities and would not require the construction or expansion of such facilities. Therefore, no further analysis is necessary.

1.7 FINAL EIR AND PROJECT APPROVAL

1.7.1 PUBLIC REVIEW OF DRAFT EIR

In accordance with CEQA, a good-faith effort has been made during the preparation of this EIR to contact all affected agencies, organizations and persons who may have an interest in this project.

This Draft EIR, with an accompanying Notice of Completion (NOC), is being circulated to the State Clearinghouse, trustee agencies, responsible agencies, other government agencies and interested members of the public for a 45-day review period as required by CEQA. The review period for this Draft EIR is between June 10 and July 25, 2011. During this period, public agencies and members of the public may provide written comments on the analysis and content of the EIR. In reviewing a Draft EIR, readers should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and on ways in which the significant effects of the project might be avoided or mitigated.

All written comments on this Draft EIR must be mailed, delivered, faxed or emailed by 5:00 p.m. on July 25, 2011, and addressed as follows:

Mail or Delivery: City of Tracy
Development and Engineering Services Department
333 Civic Center Plaza
Tracy, CA 95376
Attention: Alan Bell, Senior Planner

Fax: Alan Bell, Senior Planner
City of Tracy
(209) 831-6426

Email: Alan.Bell@ci.tracy.ca.us

All comments received on the Draft EIR during the 45-day public review period will be responded to by the City in the Final EIR.

1.7.2 CONTENTS OF FINAL EIR

The following requirements will collectively compose the Final EIR:

- The Draft EIR
- A list of all persons, organizations and public agencies that commented on the Draft EIR within the public review period
- Copies of all comments received
- Written responses to those comments

1.7.3 CERTIFICATION OF FINAL EIR AND PROJECT APPROVAL PROCESS

For a period of at least ten days prior to any public hearing during which the lead agency will take action to certify the EIR, the Final EIR will be made available to, at a minimum, the trustee and responsible agencies that provided written comments on the Draft EIR. The Final EIR must be certified before the lead agency can take action on the Project.

After the EIR is certified, the City will begin evaluating the merits of the Project and conduct public hearings to decide whether to approve the proposed Project or not. Before approving (or conditionally approving) the Project, the City must prepare a Mitigation Monitoring and Reporting Program (MMRP). The City must also prepare CEQA findings that briefly explain the rationale behind the finding for each significant impact identified for the project and, if an impact cannot be mitigated to a less than significant

level but the City as lead agency still decides to approve the Project, a Statement of Overriding Considerations.

Certification of the Final EIR and approval of the CEQA findings, MMRP and Statement of Overriding Considerations may be considered during the final public hearing. The certification of the Final EIR must be first in the sequence of approvals.

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2.0 EXECUTIVE SUMMARY

2.1 PROJECT UNDER REVIEW

The Project proposes to annex approximately 43 acres of unincorporated land to the City; amend the City General Plan land use designation of the Project site from Urban Reserve 2 (UR 2) to Commercial; amend the I-205 Corridor Specific Plan to add the Project site to the Specific Plan area, designate it General Commercial (GC) and amend the freeway sign height and size standards; and Prezone the Project site Planned Unit Development (PUD). In addition, the Project includes a maximum of 466,000 square feet of commercial/office uses to be built on the Project site.

The Project site is located within San Joaquin County (County), immediately adjacent to the northwestern boundary of the City. The City is located at the northwestern edge of the San Joaquin Valley, 60 miles east of San Francisco and 68 miles south of Sacramento. The triangular shaped site is bounded by Grant Line Road to the north, the Union Pacific Railroad (UPRR) line and Byron Road to the southwest, and the Tracy Marketplace Shopping Center to the east. Refer to Chapter 3 (Project Description) for additional detail regarding the proposed Project.

2.2 SUMMARY OF POTENTIAL IMPACTS

Under the California Environmental Quality Act (CEQA), a significant impact on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise and objects of historic and aesthetic significance. As identified in Chapter 4 (Environmental Analysis) of this Draft Environmental Impact Report (Draft EIR), the proposed Project has the potential to result in significant environmental impacts as summarized below.

2.2.1 LAND USE AND PLANNING

The proposed Project could conflict with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) resulting in a potentially significant impact. Mitigation identified in Section 4.1 (Land Use and Planning) requiring compensation for the loss of habitat and its conversion to urban use, would fulfill the mitigation requirements of the SJMSCP and reduce impacts to less than significant.

2.2.2 AESTHETICS

Project construction would create temporary views of construction debris and construction-related activities, which may result in the degradation of character of the Project area and affect the view of the site from nearby residences and passing motorists. This routine impact from typical, temporary construction activities would be short-term in duration and, therefore, result in a less than significant impact. With implementation of the standards and regulations required by the I-205 Corridor Specific Plan and the City's process for review of development applications, future development at the Project site would be consistent with the existing commercial land uses in the area. Thus, impacts in this regard would be less than significant. In addition, the Project would introduce new temporary construction-related and permanent sources of light and glare from street lights, building lights, security lights and parking lot lights. Mitigation identified in Section 4.3 (Aesthetics) would reduce this impact to less than significant.

2.2.3 AGRICULTURAL RESOURCES

The Project would result in the conversion of approximately 43 acres of land designated Prime Farmland to non-agricultural use, which would be a significant and unavoidable impact. In addition, the proposed Project would result in a significant and unavoidable cumulative impact from the loss of agricultural land within San Joaquin County and the state. Proposed mitigation would not reduce impacts to less than significant. Future development of commercial and office uses on the Project site could conflict with adjacent agricultural land uses, leading to their indirect conversion to non-agricultural use. However, buffers created by Grant Line Road, the Union Pacific Railroad (UPRR) line and Byron Road would prevent any potential for the Project to indirectly convert adjacent agricultural land to non-agricultural use, resulting in a less than significant impact.

2.2.4 AIR QUALITY

Project construction would result in potentially significant short-term increases in particulate (fugitive dust) and exhaust emissions that could be reduced to less than significant with implementation of mitigation measures identified in Section 4.5 (Air Quality). During the operational stage, traffic associated with the proposed commercial/office uses would increase air pollutant concentrations and exceed established thresholds. Mitigation identified in Section 4.5 would reduce air pollutant concentrations caused by Project traffic, but not to a less than significant level, resulting in a significant and unavoidable impact. The Project would not exceed established thresholds for carbon monoxide (CO) hotspots, odors or toxic air contaminants and related impacts would be less than significant. However, because the Project would exceed established thresholds for criteria pollutants even after the implementation of design features and recommended mitigation measures, it would result in a significant and unavoidable conflict with the applicable air quality attainment plan. Finally, the Project would result in a significant and unavoidable cumulative impact from increases in criteria air pollutants.

2.2.5 GREENHOUSE GAS EMISSIONS

As identified in Section 4.6 (Greenhouse Gas Emissions), Project design features and implementation of measures identified in the City's Sustainability Action Plan would not reduce Project-related greenhouse gas (GHG) emissions below San Joaquin Valley Air Pollution Control District (SJVAPCD) criteria. Thus, impacts would be significant and unavoidable. In addition, the Project's cumulative impacts associated with GHG emissions would be significant and unavoidable.

2.2.6 BIOLOGICAL RESOURCES

Project construction activities have the potential to disrupt the foraging activities of several special-status bird species, including Swainson's hawk, burrowing owl, white-tailed kite and loggerhead shrike, as well as SJMSCP covered species, the California horned lark. In addition, during the nesting season, Project construction could result in the incidental loss of fertile eggs or nestlings or nest abandonment for Swainson's hawk, burrowing owl, white-tailed kite, loggerhead shrike and the California horned lark, as well as direct injury and/or mortality of burrowing owls, white-tailed kite, loggerhead shrike and the California horned lark. Moreover, construction activities associated with the Project have the potential to result in the injury or mortality of individuals of several special-status bat species and the loss of one or more maternity colonies. Project construction also has the potential to result in San Joaquin kit fox injury or mortality. Construction activities have the potential to cause short-term noise impacts on nearby foraging and nesting Swainson's hawks and burrowing owls within and adjacent to the Project site. In addition, development of the Project site with the proposed commercial/office uses would result in the loss of burrowing owl habitat, Swainson's hawk foraging habitat, and potential foraging and refuge

habitat for San Joaquin kit fox. Mitigation identified in Section 4.7 (Biological Resources) requiring compensation for the loss of habitat and its conversion to urban use, would fulfill the mitigation requirements of the SJMSCP and reduce impacts to less than significant. In addition, the Project would result in a less than significant impact due to the loss of regionally abundant vegetation types and would be unlikely to spread or introduce invasive plant and animal species resulting in less than significant impacts in this regard.

2.2.7 CULTURAL RESOURCES

Construction activities associated with the proposed Project could expose potentially significant unrecorded cultural resources, including human remains, resulting in their damage or destruction. Mitigation identified in Section 4.8 (Cultural Resources) would reduce this potentially significant impact to less than significant.

2.2.8 GEOLOGY AND SOILS

Moderate ground shaking and secondary events such as liquefaction could threaten the integrity of the proposed commercial and office buildings and the safety of people present on the Project site. Future development of the Project site would involve vegetation removal and grading, which would expose soils and increase the potential for soil erosion from wind or stormwater runoff. Underlying Project soils have high liquefaction potential, which could damage the proposed commercial and office buildings during an earthquake. Finally, the expansive nature of the Project site soils could create severe structural damage and endanger occupants and visitors of the proposed commercial and office buildings. All these potentially significant impacts could be reduced to less than significant with the implementation of the requirements of the California Building Code and Tracy General Plan, and mitigation identified in Section 4.9 (Geology and Soils).

2.2.9 HAZARDS AND HAZARDOUS MATERIALS

The proposed Project has the potential to accidentally expose construction workers and occupants and visitors of the proposed commercial and office buildings to hazardous materials such as asbestos containing materials (ACMs) or lead-based paints (LBPs) from existing onsite uses, pesticide residues in the soil from past agricultural activities, residual crude oil and Bunker C soil contamination caused by offsite oil pipeline leaks and diesel vapor intrusion from potentially contaminated groundwater. In addition, the Project may subject people or structures to a significant risk of loss, injury or death as a result of exposure to wildland fires. Compliance with all applicable federal and state laws related to the use, storage, disposal and transportation of hazardous materials would reduce the likelihood and severity of accidents during transit, resulting in a less than significant impact. In addition, the Project would not interfere with the implementation of emergency response plans and less than significant impacts would occur in this regard. All potentially significant impacts would be reduced to a less than significant level with implementation of mitigation measures identified in Section 4.10 (Hazards and Hazardous Materials).

2.2.10 HYDROLOGY AND WATER QUALITY

Construction and operation of the proposed Project could degrade water quality within the Project area. However, future development on the Project site would be required to comply with state and local water quality regulations, resulting in a less than significant impact in this regard. The proposed Project would increase the demand for groundwater, but it would not substantially deplete groundwater supplies, as the City has sufficient water supplies, including groundwater supplies to serve the Project and the City's

other existing and projected future water demands. In addition, given the relatively large size of the groundwater basin in the Tracy area, the impervious surface area added as a result of the Project would not adversely affect the recharge capabilities of the local groundwater basin. Thus, the Project would have less than significant impacts related to groundwater supply and recharge. Future development would involve vegetation removal, grading and the construction of buildings, parking lots, sidewalks and driveways, which would alter existing drainage patterns and increase the potential for erosion and/or siltation. The Project would increase the amount of impervious surface onsite, which would change existing absorption rates, drainage patterns and the amount of stormwater runoff and could result in potential flooding on and offsite or exceed the capacity of existing or planned stormwater drainage systems. A combination of mitigation identified in Section 4.11 (Hydrology and Water Quality) and compliance with state and local policies and regulations would reduce these potentially significant impacts to less than significant.

2.2.11 NOISE

Project construction would result in potentially significant temporary increases in noise. However, vibration associated with construction would be less than significant. During operation, noise from mechanical equipment and loading docks could exceed City standards for sensitive uses (resulting in a potentially significant impact). Parking lot and landscape maintenance noise was determined to be less than significant. Traffic noise from the Project would not exceed City standards in the near term or long term. Railroad noise would also not exceed City standards and related impacts would be less than significant. A combination of mitigation identified in Section 4.12 (Noise) and compliance with City policies and regulations would reduce the Project's potential noise impacts to less than significant.

2.2.12 PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

The Tracy Fire Department (TFD) would be able to serve the proposed Project within established response times after Station 96 is relocated to 1800 W. Grant Line Road. This relocation project is scheduled to be complete in fiscal year 2012/2013 (CIP# 71061). According to the Tracy Police Department, the proposed Project would result in the need for approximately 0.5 full time equivalent (FTE) of an additional police officer. The Project would be subject to public facilities impact fees to offset its impacts on police and fire facilities and, therefore, impacts would be less than significant. Moreover, the Project's impacts on schools would be less than significant with payment of school impact fees. There is sufficient wastewater capacity, water supply and solid waste capacity to serve the proposed Project. However, the Project would need to construct new wastewater lines and possibly additional water lines and/or pump station and water reservoir improvements. Construction-related impacts associated with these improvements (short-term increases in noise and air pollutants, as well as temporary traffic delays) would be reduced to less than significant with adherence to City requirements and mitigation identified in Section 4.5.

2.2.13 TRANSPORTATION/TRAFFIC

The addition of Project traffic to existing conditions would cause operations at the following intersections to degrade to an unacceptable level of service (LOS): Lammers Road and Grant Line Road (AM and PM peak hour); I-205 Eastbound Off-Ramp and Grant Line Road (PM peak hour and Saturday peak hour); and Access-2 and Grant Line Road (PM peak hour). Under existing conditions, the addition of Project traffic at the intersection of Access-3 and Grant Line Road could result in unsafe driving conditions. The addition of Project traffic along with near term growth (anticipated growth at Project buildout – Year 2015) would cause operations at the following intersections to degrade to an unacceptable LOS: Lammers Road and Grant Line Road; I-205 EB Off-Ramp and Grant Line Road; Access-2 and Grant Line Road;

and Access-3 and Grant Line Road. Under cumulative conditions (anticipated growth at Year 2030), the proposed Project along with cumulative growth would result in unacceptable LOS at the following four intersections: Lammers Road and Grant Line Road; I-205 Eastbound Off-Ramp and Grant Line Road; Corral Hollow Road and Byron Road; and Access-2 and Grant Line Road. All impacts would be reduced to less than significant with mitigation identified in Section 4.14 (Transportation/Traffic).

2.3 GROWTH INDUCING AND CUMULATIVE IMPACTS

Chapter 5 (Growth Inducing and Cumulative Impacts) of this Draft EIR evaluates the cumulative and growth-inducing impacts of the proposed Project. In general, with implementation of the specified mitigation measures, the project's contribution to cumulative impacts would not be significant. However, the proposed Project would result in impacts to agricultural resources, air quality and GHG emissions that would be cumulatively considerable. The Project is not expected to induce unplanned growth or development in the vicinity of the Project site.

2.4 SUMMARY OF ALTERNATIVES EVALUATED

Chapter 6 (Alternatives) of this EIR evaluates alternatives to the proposed Project in accordance with the CEQA Guidelines Section 15126.6. These alternatives include:

- Alternative 1: No Project/No Build (Status Quo)
- Alternative 2: Mixed-Use Development
- Alternative 3: Industrial Development

2.4.1 NO PROJECT/NO BUILD (STATUS QUO)

Under the No Project/No Build (Status Quo) Alternative (Alternative 1), there would be no physical or operational changes at the Project site and, thus, the existing conditions would remain unchanged. The Project site would not be annexed to the City, the City of Tracy General Plan (City General Plan) and I-205 Corridor Specific Plan would not be amended, and the site would not be Prezoned Planned Unit Development (PUD).

2.4.2 MIXED-USE DEVELOPMENT

The Mixed-Use Development Alternative (Alternative 2) assumes the Project site would develop with a mix of high density residential, commercial and office uses consistent with the Commercial land use designation identified in the City General Plan. This alternative would require annexation of the Project site to the City; a General Plan amendment to re-designate the Project site from UR 2 to Commercial; and Prezoning the site PUD. Similar to the proposed Project, the net size of the site may be at or near 40 acres due to dedication of land for the Grant Line Road right-of-way. This alternative would allow a similar mix of land uses to develop on the Project site as envisioned by the City General Plan statistical profile. However, this alternative assumes a little less than half the land envisioned for commercial uses (approximately 16 acres) would be developed with residential uses, since the Commercial land use designation allows appropriately scaled and designed residential development in the density ranges permitted in the Residential High (RH) designation (12.1 to 25 units per gross acre). The City General Plan statistical profile for the Project site applies a floor area ratio (FAR) of 0.3 for the commercial and office uses envisioned for the Project site. This alternative is similar to a previous development application processed for the site by the City in 1999.

Based on this, Alternative 2 would include 16 acres of residential uses at a density of 18 units per gross acre (288 multi-family units), 17 acres of commercial uses at an FAR of 0.3 (222,156 square feet) and seven acres of office uses at an FAR of 0.3 (91,476 square feet). Alternative 2 would allow multiple combinations of uses and building types, which would allow for flexibility of uses within the site. As a result, uses could be mixed in varying combinations or not mixed at all (e.g., a building could contain first floor retail with residential above, or only residential). Because this alternative represents a mixed-use development with less emphasis on commercial land use, Alternative 2 would not include the proposed freestanding freeway sign and related proposal to amend freeway sign height and sign standards of the I-205 Corridor Specific Plan. The purpose of this alternative is to provide a comparison between the Project's impacts and those that may occur from a similar, but slightly different development scenario that would be allowed by the General Plan that includes residential development.

2.4.3 INDUSTRIAL DEVELOPMENT

The Industrial Development Alternative (Alternative 3) assumes that the Project site would be developed with industrial uses such as warehouse, distribution and mini storage. This alternative would require annexation of the Project site to the City; a General Plan amendment to re-designate the Project site from UR 2 to Industrial; an amendment to the I-205 Corridor Specific Plan to add the Project site to the Specific Plan and designate it Light Industrial; and Prezoning the site PUD. Alternative 3 would not include the proposed freestanding freeway sign and related proposal to amend freeway sign height and sign standards of the I-205 Corridor Specific Plan. The purpose of this alternative is to provide a comparison between the Project's impacts with those that may occur from other potentially lower impact uses allowed on the site by the I-205 Corridor Specific Plan. Similar to the proposed Project and Alternative 2, the net size of the site may be at or near 40 acres due to dedication of land for the Grant Line Road right-of-way. Under this alternative, 33 acres of the site would develop with warehouse and distribution uses and the remaining seven acres with mini storage. Based on the I-205 Corridor Specific Plan's FAR of up to 0.5 for warehouse/distribution uses (and applying this same maximum FAR to mini storage uses), 33 acres of warehouse/distribution could accommodate a maximum of 718,740 square feet of floor area and seven acres of mini storage could include up to 152,460 square feet.

2.4.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of the environmentally superior alternative in an EIR, which is an alternative that would result in the fewest or least significant environmental impacts. If the "No Project" Alternative is the environmentally superior alternative, *CEQA Guidelines* Section 15126.6 (e)(2) requires that another alternative that could feasibly attain most of the project's basic objectives be chosen as the environmentally superior alternative. Based on analysis in Chapter 6, the environmentally superior alternative is Alternative 3. Although impacts associated with land use and planning, hydrology and water quality and noise would be slightly greater, the majority of impacts would be the same or reduced compared to those identified for the proposed Project. Specifically, impacts associated with agricultural resources, biological resources, cultural resources and transportation/traffic would be equivalent under Alternative 2 and the proposed Project. However, Alternative 2 would result in reduced impacts compared to the proposed Project in the following areas: aesthetics; geology and soils; GHG emissions; hazards and hazardous materials; and public services, utilities and service systems. Some impacts associated with air quality would be reduced and some would be greater.

2.5 OTHER CEQA CONSIDERATIONS

Chapter 7 (Other CEQA Considerations) of this Draft EIR provides a discussion of the significant and unavoidable impacts and the significant irreversible changes of the proposed Project. As described in this

chapter, the proposed Project would result in significant and unavoidable impacts to agricultural resources, air quality and GHG emissions.

2.6 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines Section 15123 requires that EIRs summarize areas of controversy known to the lead agency and issues to be resolved. Issues were identified during the Notice of Preparation (NOP) review period and have been addressed in the Draft EIR. No apparent substantial areas of controversy not already addressed in this Draft EIR were identified. Comment letters received from organizations and public agencies in response to the NOP are included in Appendix A (Notice of Preparation and Public Comments).

2.7 MITIGATION MONITORING AND REPORTING

CEQA requires public agencies to set up mitigation monitoring and reporting programs to ensure compliance with those measures adopted or made as a condition of project approval to mitigate or avoid significant environmental effects identified in an EIR. A mitigation monitoring and reporting program incorporating the mitigation measures set forth in this document will be considered and acted upon by the Tracy City Council for adoption concurrent with the adoption of the findings of this EIR and prior to a determination on whether or not to approve the proposed project.

2.8 SUMMARY TABLE

Table 2-1 (Summary of Impacts and Mitigation) provides a summary of the proposed project's potentially significant impacts, the level of significance of the impact before mitigation, the mitigation measures proposed to reduce or avoid the potentially significant effects, and the level of significance of the impact after mitigation.

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Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Land Use			
4.2-1 - The proposed Project could conflict with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan.	Potentially Significant Impact	4.2-1 - Prior to the issuance of grading or building permits, the Project applicant shall either pay the appropriate fee or dedicate, as conservation easements or fee title, habitat lands as prescribed by the San Joaquin County Council of Governments to compensate for the loss of Agricultural Habitat Land and its conversion to urban use.	Less Than Significant Impact
Aesthetics			
4.3-1 - Implementation of the proposed Project could result in the degradation of the visual character/quality of the site and its surroundings.	Less Than Significant Impact	No mitigation is required.	Not applicable
4.3-2 - Implementation of the proposed Project may generate additional light and glare beyond existing conditions.	Potentially Significant Impact	4.3-2a - All construction-related lighting shall be located and aimed away from adjacent residential areas and consist of the minimal wattage necessary to provide safety at the construction site. 4.3-2b - The Project applicant shall ensure that any exterior lighting does not spill over onto the adjacent uses in accordance with Tracy Municipal Code Section 10.08. Adequate lighting in accordance with City of Tracy Standard Plan 154 shall be provided to ensure the safety and security of pedestrians and vehicular movements.	Less Than Significant Impact
4.3-3 - The proposed Project would result in a cumulatively considerable impact to the visual character/quality of the site and surrounding area.	Potentially Significant Impact	4.3-3 - Implement Mitigation Measure 4.3-1.	Less Than Significant Impact
Agricultural Resources			
4.4-1 - The proposed Project would convert prime farmland to non-agricultural use.	Potentially Significant Impact	4.4-1 - Prior to the issuance of building permits, the Project applicant shall pay the appropriate Agricultural Mitigation Fee to the City of Tracy, in	Significant and Unavoidable Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		accordance with Chapter 13.28 of the Tracy Municipal Code.	
4.4-2 - The proposed Project could conflict with agricultural zoning or otherwise result in land use conflicts with adjacent agricultural lands, which may lead to the indirect conversion of agricultural lands to non-agricultural uses.	Less Than Significant Impact	No mitigation is required	Not applicable
4.4-3 - The proposed Project would result in cumulatively considerable impacts to agricultural resources.	Potentially Significant Impact	No feasible mitigation is available beyond the payment of fees described in Mitigation Measure 4.4-1.	Significant and Unavoidable Impact
Air Quality			
4.5-1 - Implementation of the Project would result in temporary construction-related dust and vehicle emissions within the Project site.	Potentially Significant Impact	4.5-1a - Prior to the issuance of any grading, building, or other construction permit, the Project applicant shall demonstrate conformance with SJVAPCD Rule VIII to the satisfaction of the SJVAPCD. The Development and Engineering Services Department shall require that the grading plans, building plans, and specifications stipulate compliance with the control measures in SJVAPCD Regulation VIII. The mitigation could include the following or may include other measures as determined by the SJVAPCD: • Properly and routinely maintain all construction equipment, as recommended by manufacturer's manuals, to control exhaust emissions. • Shut down equipment when not in use for extended periods of time, to reduce exhaust emissions associated with idling engines. • Encourage ride-sharing and use of transit transportation for construction employees commuting to the project site. • Use electric equipment for construction whenever possible in lieu of fossil fuel-fired	Less Than Significant Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		equipment. • Curtail construction during periods of high ambient pollutant concentrations. • Construction equipment shall operate no longer than eight cumulative hours per day. • All construction vehicles shall be equipped with proper emission control equipment and kept in good and proper running order to reduce NOX emissions. • All construction activities within the project site shall be discontinued during the first stage smog alerts. • Construction and grading activities shall not be allowed during first stage ozone alerts. (First stage ozone alerts are declared when ozone levels exceed 0.20 ppm for the 1-hour average.) 4.5-1b - Prior to the issuance of any grading, building, or other construction permit, the Project applicant shall demonstrate conformance with SJVAPCD Rule VIII to the satisfaction of the SJVAPCD. The Development and Engineering Services Department shall require that the grading plans, building plans, and specifications stipulate that, in compliance with the fugitive dust control measures in SJVAPCD Regulation VIII. The mitigation could include the following or may include other measures as determined by the SJVAPCD: • Water previously disturbed exposed surfaces (soil) a minimum of three-times/day or whenever visible dust is capable of drifting from the site or approaches 20 percent opacity.	

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• Water all haul roads (unpaved) a minimum of three-times/day or whenever visible dust from such roads is capable of drifting from the site or approaches 20 percent opacity. • All access roads and parking areas shall be covered with asphalt-concrete paving or water sprayed regularly. • Dust from all onsite and offsite unpaved access roads shall be effectively stabilized by applying water or using a chemical stabilizer or suppressant. • Reduce speed on unpaved roads to less than 15 miles per hour. • Install and maintain a trackout control device that meets the specifications of SJVAPCD Rule 8041 if the site exceeds 150 vehicle trips per day or more than 20 vehicle trips per day by vehicle with three or more axles. • Stabilize all disturbed areas, including storage piles, which are not being actively utilized for construction purposes using water, chemical stabilizers or by covering with a tarp, other suitable cover or vegetative ground cover. • Control fugitive dust emissions during land clearing, grubbing, scraping, excavation, leveling, grading or cut and fill operations with application of water or by presoaking. • When transporting materials offsite, maintain a freeboard limit of at least six inches and cover or effectively wet to limit visible dust emissions. • Limit and remove the accumulation of mud and/or dirt from adjacent public roadways at the end of each workday. (Use of dry rotary	

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		brushes is prohibited except when preceded or accompanied by sufficient wetting to limit visible dust emissions and use of blowers is expressly forbidden). • Stabilize the surface of storage piles following the addition or removal of materials using water or chemical stabilizer/suppressants. • Remove visible track-out from the site at the end of each workday. • Cease grading activities during periods of high winds (greater than 20 miles per hour [mph] over a one-hour period). • Asphalt-concrete paving shall comply with SJVAPCD Rule 4641 and restrict use of cutback, slow-cure, and emulsified asphalt paving materials. • Grading should be conducted in phases. • The Project site shall not be cleared of existing vegetation cover for the preparation of construction until the issuance of grading permits required by construction. • The Project applicant shall revegetate graded areas as soon as it is feasible after construction is completed.	
4.5-2 - The proposed Project would result in an overall increase in the local and regional pollutant load due to direct impacts from vehicle emissions and indirect impacts from electricity and natural gas consumption.	Potentially Significant Impact	4.5-2 - Prior to issuance of building permits, the Development and Engineering Services Department shall verify that the Project has demonstrated compliance with SJVAPCD Rule 9510, Indirect Source Review (ISR) to the satisfaction of the SJVAPCD. The Project applicant shall coordinate with the SJVAPCD to ensure that the Project meets the requirements of SJVAPCD Rule 9510, which requires the following reductions:	Significant and Unavoidable Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• 20 percent of construction-exhaust NO_X • 45 percent of construction-exhaust PM_{10} • 33 percent of operational NO_X over 10 years • 50 percent of operational PM_{10} over 10 years The SJVAPCD provides numerous measures to attain the emissions reductions targets above, which are available on their website (http://www.valleyair.org/ISR/ISROnSiteMeasures.htm). The SJVAPCD allows project applicants to choose to implement the SJVAPCD-approved emissions reduction measures, or pay an emission based fee to fund off-site emissions reduction projects. If in-lieu fees are required, the Project applicant shall coordinate with the SJVAPCD to calculate the amount of the fees required to off-set Project impacts.	
4.5-3 - Implementation of the proposed Project could conflict with the most recent air quality management plan.	Potentially Significant Impact	Implement Mitigation Measure 4.5-2. No other feasible mitigation measures are available.	Significant and Unavoidable Impact
4.5-4 - Implementation of the proposed Project could impact regional air quality levels on a cumulatively considerable basis.	Potentially Significant Impact	Implement Mitigation Measures 4.5-1a, 4.5-1b and 4.5-2. No other feasible mitigation measures are available.	Significant and Unavoidable Impact
Greenhouse Gas Emissions			
4.6-1 - Greenhouse gas emissions generated by the proposed Project would have a significant impact on the environment.	Potentially Significant Impact	No feasible mitigation beyond measures included in the General Plan and Sustainability Action Plan are available.	Significant and Unavoidable Impact
4.6-2 - Implementation of the proposed Project could conflict with an applicable greenhouse gas reduction plan, policy or regulation.	Less Than Significant Impact	No mitigation is required	Not applicable

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.6-3 - Greenhouse gas emissions resulting from development associated with implementation of the proposed Project would impact greenhouse gas levels on a cumulatively considerable basis.	Potentially Significant Impact	No feasible mitigation beyond measures included in the General Plan and Sustainability Action Plan are available.	Significant and Unavoidable Impact
Biological Resources			
4.7-1 - Construction in the Project area could disturb nesting Swainson's hawk and result in the loss of foraging habitat.	Potentially Significant Impact	4-.7-1 - Prior to the issuance of grading or building permits, the Project applicant shall either pay the appropriate fee or dedicate, as conservation easements or fee title, habitat lands as prescribed by the San Joaquin County Council of Governments to compensate for the loss of habitat and its conversion to urban use.	Less Than Significant Impact
4.7-2 - The proposed Project could disturb nesting burrowing owls and result in the loss of occupied burrowing owl habitat.	Potentially Significant Impact	Implement Mitigation Measure 4.7-1.	Less Than Significant Impact
4.7-3 - The proposed Project could disturb nesting white-tailed kites and result in injury or mortality to individuals.	Potentially Significant Impact	Implement Mitigation Measure 4.7-1.	Less Than Significant Impact
4.7-4 - The proposed Project could disturb nesting loggerhead shrikes and result in injury or mortality to individuals.	Potentially Significant Impact	Implement Mitigation Measure 4.7-1.	Less Than Significant Impact
4.7-5 - The proposed Project could disturb nesting California horned larks and result in injury or mortality to individuals.	Potentially Significant Impact	Implement Mitigation Measure 4.7-1.	Less Than Significant Impact
4.7-6 - The proposed Project could result in injury or mortality to, and loss of foraging and refuge habitat for, San Joaquin kit foxes	Potentially Significant Impact	Implement Mitigation Measure 4.7-1.	Less Than Significant Impact
4.7-7 - The proposed Project could result in the injury or mortality and the disturbance of maternity colonies of pallid bat and SJMSCP-covered bat species	Potentially Significant Impact	4.7-7 - The Project applicant shall implement take minimization measures, adopted in the SJMSCP to avoid take of other bat species, to minimize take of pallid bats during the breeding season (April – September).	Less Than Significant Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.7-8 - Grading and construction within the Project area would result in temporary noise impacts to nearby Swainson's hawks and burrowing owls.	Potentially Significant Impact	Implement Mitigation Measure 4.7-1.	Less Than Significant Impact
4.7-9 - The proposed Project would result in impacts to regionally abundant vegetation types, including agriculture (hay field), ruderal habitat, and developed areas, and the common wildlife species associated with these habitats.	Less Than Significant Impact	No mitigation is required	Not applicable
4.7-10 - The proposed Project could result in a potential impact from the spread or introduction of invasive plant and animal species.	Less Than Significant Impact	No mitigation is required	Not applicable
Cultural Resources			
4.8-1 - Project implementation may cause a substantial adverse change to an unknown historical or archaeological resource, or result in the damage or destruction of unknown paleontological resources or human remains.	Potentially Significant Impact	4.8-1 - If subsurface deposits believed to be cultural or human in origin are discovered during the construction of the Project, then all work shall halt within a 200-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained at the Project sponsor's expense to evaluate the significance of the find. 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 National Register of Historic Places or the California Register of Historical Resources. If a potentially-eligible resource is encountered, then the archaeologist, lead agency and Project sponsor shall arrange for either: 1) total avoidance of the resource, if possible; or 2) test	Less Than Significant Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		excavations to evaluate eligibility and, if eligible, data recovery as mitigation. The determination shall be formally documented in writing and submitted to the lead agency and filed with the North Central Information Center as verification that the provisions in this mitigation measure have been met. If human remains of any kind are found during construction activities, all activities shall cease immediately and the San Joaquin County Coroner be notified as required by state law (Section 7050.5 of the Health and Safety Code). If the coroner determines the remains to be of Native American origin, he or she shall notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the most likely descendant(s) (MLD) to be consulted regarding treatment and/or reburial of the remains (Section 5097.98 of the Public Resources Code). If an MLD cannot be identified, or the MLD fails to make a recommendation regarding the treatment of the remains within 48 hours after gaining access to the remains, the City shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. Work can continue once the MLD's recommendations have been implemented or the remains have been reburied if no agreement can be reached with the MLD (Section 5097.98 of the Public Resources Code). If any fossils are encountered, there shall be no further disturbance of the area surrounding this find until the materials have been evaluated by a qualified paleontologist, and appropriate treatment measures have been identified.	

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Geology and Soils			
4.9-1 - The proposed Project could expose people or structures to potentially substantial adverse effects including the risk of loss, injury, or death as a result of seismic-related ground shaking or liquefaction.	Less Than Significant Impact	No mitigation is required	Not applicable
4.9-2 - The proposed Project could result in substantial soil erosion or the loss of topsoil.	Potentially Significant Impact	4.9-2 - In accordance with CBC (Title 24, Part 2) Section 18O4A.3 and A.5, and the requirements of Tracy General Plan Objective SA-1.1, Policy 1, liquefaction and seismic settlement potential shall be addressed in design-level geotechnical engineering investigations. The City's Building Division of the Development and Engineering Services Department shall ensure that all the pertinent sections of the CBC shall be adhered to in the construction of buildings on the Project site, and that all appropriate measures are implemented in order to reduce the risk of liquefaction and seismic settlement prior to the issuance of a building permit.	Less Than Significant Impact
4.9-3 - The proposed Project could be located on a geologic formation unit or soil that is unstable, or that would become unstable as a result of construction and potentially result in liquefaction.	Potentially Significant Impact	Implement Mitigation Measure 4.9-2.	Less Than Significant Impact
4.8-4 - The proposed Project could be located on expansive soil, as defined in Table 18-1-b of the California Building Code (1994), creating substantial risks to life or property	Potentially Significant Impact	Implement Mitigation Measure 4.9-2.	Less Than Significant Impact
Hazards and Hazardous Materials			
4.10-1 - Short-term construction activities and long-term operations at the Project site may create a significant hazard to the public or environment through accident conditions involving the release of hazardous materials.	Potentially Significant Impact	4.10-1a - Prior to demolition and/or rehabilitation activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and California Division of Occupational Safety and Health (Cal/OSHA)	Less Than Significant Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		certified building inspector to determine the presence or absence of asbestos-containing materials (ACMs). If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be performed by a State certified asbestos containment contractor in accordance with the San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4002. 4.10-1b - If paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste shall be evaluated independently from the building material for lead by a qualified Environmental Professional. If lead-based paint is found, abatement shall be completed by a qualified Lead Specialist prior to any activities that would create lead dust or fume hazard. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifies exposure limits, exposure monitoring and respiratory protection, and mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City. 4.10-1c - Prior to issuance of a grading permit, soil sampling shall occur within the portions of the Project site that have historically been utilized for agricultural purposes and may contain pesticide residues in the soil, as determined by a qualified Phase II/Site Characterization specialist. The sampling, conducted in consultation with the San Joaquin County Environmental Health	

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Department (EHD), shall determine if pesticide concentrations exceed established regulatory requirements and shall identify further site characterization and remedial activities, if necessary. Should further site characterization/remedial activities be required, these activities shall be conducted per the applicable regulatory agency requirements, as directed by the EHD. 4.10-1d - A qualified Site Characterization specialist shall conduct updated site characterization at the Project site, if required by the San Joaquin County Environmental Health Department (EHD), prior to issuance of building permits, in consultation with Chevron and EHD, with regard to onsite contaminated soils associated with adjacent pipeline leaks. Upon completion of site characterization activities, the Site Characterization specialist shall recommend remedial activities, if necessary, in consultation with EHD. 4.10-1e - Prior to issuance of building permits, vapor intrusion investigations shall be conducted by a qualified Environmental Professional, in consultation with the San Joaquin County Environmental Health Department (EHD). Should the Environmental Professional determine that proposed buildings could be impacted by vapor intrusion, the Environmental Professional, in consultation with EHD, shall recommend specific design measures to be incorporated into the buildings design that would reduce these indoor air quality concentrations to below regulatory thresholds, as directed by the EHD. 4.10-1f - Prior to issuance of a grading permit,	

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		the Project applicant(s) shall submit a Worker Safety Plan for site disturbance/construction activities, in consultation with California Division of Occupational Safety and Health (Cal/OSHA) and the San Joaquin County Environmental Health Department (EHD). The Worker Safety Plan shall include safety precautions (e.g., personal protective equipment or other precautions to be taken to minimize exposure to hazardous materials) to be taken by personnel when encountering potential hazardous materials, including potential contaminated groundwater. 4.10-1g - If unknown wastes or suspect materials are discovered during construction by the contractor that are believed to involve hazardous waste or materials, the contractor shall comply with the following: • Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area • Notify the City Building Official • Secure the areas as directed by the City Building Official • Notify the San Joaquin County Environmental Health Department's (EHD's) Hazardous Waste/Materials Coordinator.	
4.10-2 - Operations of the Project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less Than Significant Impact	No mitigation is required	Not applicable
4.10-3 - The Project site is located on a site that is included on a list of hazardous materials sites compiled pursuant to government code section	Potentially Significant Impact	Implement Mitigation Measures 4.10-1d and 4.10-1e.	Less Than Significant

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
65962.5 and, as a result, could create a significant hazard to the public or the environment.			
4.10-4 - Development of the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less Than Significant Impact	No mitigation is required	Not applicable
4.10-5 - Project implementation may expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	Potentially Significant Impact	4.10-5 - Prior to issuance of building permits, all development at the Project site shall satisfy fire flow and hydrant requirements, street widths and design requirements, as established by the City.	Less Than Significant Impact
Hydrology and Water Quality			
4.11-1 - The proposed Project could violate water quality standards or waste discharge requirements.	Less Than Significant Impact	No mitigation is required	Not applicable
4.11-2 - The proposed Project could substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.	Less Than Significant Impact	No mitigation is required	Not applicable
4.11-3 - The proposed Project could substantially alter the existing drainage pattern of the site or area, which could result in substantial erosion or siltation on or offsite.	Less Than Significant Impact	No mitigation is required	Not applicable
4.11-4 - The proposed Project could substantially alter the existing drainage pattern of the site or area, which could substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite.	Potentially Significant Impact	4.11-4 - Plans submitted for a grading permit shall include a detailed hydrology report. The report shall include calculations regarding the anticipated volume of stormwater runoff generated by the Project, and shall demonstrate that adequate stormwater conveyance and capacity is available in the existing Westside	Less Than Significant Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Channel system. Calculations shall be consistent with the current version of the City's Manual of Stormwater Quality Control Standards for New Development and Redevelopment. The hydrology report shall be subject to review and approval by the City Engineer. If the hydrology report determines that the existing Westside Channel system does not have adequate stormwater conveyance and capacity to serve the Project site, then the Project applicant shall develop a detailed stormwater detention plan for the retention/detention of stormwater runoff on the Project site. The stormwater detention facilities shall be designed with adequate capacity to ensure that that stormwater generated on the Project site during a peak storm event is retained at a rate that would ensure that discharges from the site do not exceed pre-construction levels. All detention facilities shall be developed in conformance with the City's standards, including those identified in the City's Manual of Stormwater Quality Control Standards for New Development and Redevelopment. The plans and specifications of the proposed detention facilities shall meet the standards of the City of Tracy Development and Engineering Services Department as an adequate engineering product. The construction of stormwater detention facilities may be phased to correspond with development of the Project site over time, provided that adequate detention is provided at all times to ensure that runoff from the site does not exceed pre-construction levels.	
4.11-5 - The proposed Project could create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial	Potentially Significant Impact	Implement Mitigation Measure 4.11-4	Less Than Significant Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
additional sources of polluted runoff.			
Noise			
4.12-1 - Grading and construction within the Project site could result in temporary noise impacts to nearby noise sensitive receivers.	Less Than Significant Impact	No mitigation is required	Not applicable
4.12-2 - Development associated with implementation of the proposed Project could result in temporary vibration impacts to nearby sensitive receptors during grading and construction activities.	Less Than Significant Impact	No mitigation is required	Not applicable
4.12-3 - Implementation of the proposed Project could result in an increase in ambient noise levels due to operational noise impacts.	Potentially Significant Impact	4.12-3a - Prior to issuance of a building permit, the Project applicant shall demonstrate, to the satisfaction of the Development and Engineering Services Department, that site placement of stationary noise sources would not exceed the City's noise standard of 60 dBA at any adjacent residential district property line inside the City limits, or 65 dBA at an adjacent commercial property line.	Less Than Significant Impact
4.12-4 - Traffic generated by the proposed Project could significantly contribute to existing traffic noise in the area or exceed the City's established standards.	Less Than Significant Impact	No mitigation is required	Not applicable
Public Services, Utilities and Service Systems			
4.13-1 - The public service needs of the proposed Project could result in substantial adverse impacts.	Less Than Significant Impact	No mitigation is required	Not applicable
4.13-2 - The proposed Project would generate wastewater that could impact the City's wastewater treatment plant.	Less Than Significant Impact	No mitigation is required	Not applicable
4.13-3 - The proposed Project would construct sewer lines, the construction of which	Potentially Significant Impact	4.13-3 - Prior to issuance of grading or building permits, whichever occurs first, sewer design calculations shall be prepared for review and	Less Than Significant Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
could cause significant environmental effects.		approval by the City Engineer to ensure proper sizing of sewer lines and lift stations to meet sewer flow requirements.	
Transportation/Traffic			
4.14-1 - The proposed Project would increase traffic at study area intersections and roadway segments. Eleven study intersections and all study freeway mainline segments would continue to operate at acceptable levels of service in accordance with the City of Tracy, San Joaquin County and Caltrans significance criteria during the weekday am and pm peak hour and the Saturday mid-day peak hour as indicated.	Less Than Significant Impact	No mitigation is required	Not applicable
4.14-2 - The proposed Project would add traffic to the unsignalized County (City of Tracy with Project annexation) intersection of Lammers Road and Grant Line Road (Intersection #2). This intersection is projected to operate at an overall LOS F (unacceptable) in the AM and PM peak hour.	Potentially Significant Impact	4.14-2 - A traffic signal shall be installed at the intersection of Lammers Road and Grant Line Road (Intersection #2). In conjunction with the proposed traffic signal installation, the following geometric improvements shall be constructed: • Westbound approach – Reconstruct the approach to include one through lane and one through/right turn lane and a separate left-turn lane. • Eastbound approach – Reconstruct the approach to include one through lane and one shared through/right-turn lane. Provide an acceleration lane east of Lammers Road. • Northbound approach – Reconstruct the approach to include a shared left-turn/through lane and a right-turn lane. The existing truck exit from Costco would be reconstructed to be part of the intersection and the current truck movements incorporated in the northbound right-turn movement.	Less Than Significant Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		The Project applicant shall be responsible for implementation of the above improvements prior to Project occupancy or at a time determined by the City Engineer based on the City's ability to meet City vehicle and pedestrian standards. If all or a portion of this traffic signal improvement is otherwise scheduled by the City to be financed as a Program improvement, the Project applicant may be eligible for reimbursements from future benefiting development in excess of the Project's fair share costs.	
4.14-3 - The proposed Project would add traffic to the Caltrans intersection of I-205 eastbound ramps and Grant Line Road (Intersection #6). This intersection is projected to operate at an LOS E (unacceptable) during the PM and Saturday peak hours.	Potentially Significant Impact	4.14-3 - A second eastbound left-turn lane and widening of the eastbound on-ramp to two lanes shall be constructed at the intersection of I-205 Eastbound Off-ramp and Grant Line Road (Intersection #6). The proposed improvement may require a design exemption from Caltrans. This improvement is included in the City's TIF program (Project 72PP-084). The Project applicant shall make a fair share contribution toward implementation of this improvement through the payment of City of Tracy traffic impact fees.	Less Than Significant Impact
4.14-4 - The proposed Project would add a driveway and traffic at Project Access Road-2 and Grant Line Road (Intersection #17). This intersection is projected to operate at LOS F (unacceptable) in the PM peak hour.	Potentially Significant Impact	4.14-4 - A traffic signal shall be installed at the intersection of Access Road-2 and Grant Line Road (Intersection #17). In conjunction with the traffic signal installation, the following geometric improvements shall be constructed: • Westbound approach – Provide two through lanes and a left-turn lane. • Eastbound approach – Provide one through lane and one shared through/right-turn lane. • Northbound approach – Provide a separate	Less Than Significant Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		left-turn and right-turn lane. The four lane improvement along Grant Line Road would continue along the Project frontage to accommodate traffic flow demand. SimTraffic analysis indicates that four lanes are required to avoid queue overflow between the Project driveways. The Project applicant shall be responsible for implementation of the above improvements prior to project occupancy or at a time determined by the City Engineer based on the City's ability to meet City vehicle and pedestrian standards.	
4.14-5 - The proposed Project would add a driveway and traffic at Project Access Road-3 and Grant Line Road (intersection #19) that could result in unsafe conditions.	Potentially Significant Impact	4.14-5 -A westbound left-turn lane for inbound Project traffic shall be provided at the intersection of Access Road-3 and Grant Line Road (Intersection #19). The Project applicant shall be responsible for implementation of the left-turn lane prior to Project occupancy.	Less Than Significant Impact
4.14-6 - The proposed Project, along with near term growth, would result in unacceptable traffic operations at four intersections.	Potentially Significant Impact	Implement Mitigation Measures 4.14-2 through 4.14-5.	Less Than Significant Impact
4.14-7 - The proposed Project would add traffic to I-205 freeway segments under near-term conditions.	Less Than Significant Impact	No mitigation is required	Not applicable
4.14-8 - The proposed Project, along with cumulative growth, would result in unacceptable operations at four intersections.	Potentially Significant Impact	4.14-8a - To provide acceptable (LOS D or better) operations at the intersection of Lammers Road/Grant Line Road, a westbound left-turn lane and conversion of one eastbound through lane into a shared through/right-turn lane shall be constructed. These improvements are similar to those recommended in Mitigation Measure 4.14-2. In addition, the northbound approach shall be modified to provide a separate left-turn lane and a shared through/right-turn lane. The Project applicant shall be responsible for implementation	Less Than Significant Impact

Table 2-1
Summary of Impacts and Mitigation

Environmental Impacts	Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		of the above improvements prior to occupancy or at a time determined by the City Engineer based on the City's ability to meet City vehicle and pedestrian standards. 4.14-8b - The Project applicant shall make a fair share contribution toward implementation of improvements at the intersection of I-205 Eastbound Off-Ramp/Grant Line Road including the construction of an eastbound loop on-ramp through payment of City traffic impact fees. 4.14-8c - The addition of a traffic signal, westbound left-turn lane (Mitigation Measure 4.14-5), and separate left-turn and right-turn lanes on the northbound approach shall be required.	
4.14-9 - The proposed Project would add traffic to I-205 freeway segments under cumulative conditions.	Less Than Significant Impact	No mitigation is required	Not applicable

3.0 PROJECT DESCRIPTION

3.1 PROJECT SUMMARY

The Filios/Dobler Annexation and Development Project (Project) proposes to annex approximately 43 acres of unincorporated land to the City of Tracy (City); amend the City General Plan land use designation of the Project site from Urban Reserve 2 (UR 2) to Commercial; amend the I-205 Corridor Specific Plan to add the Project site to the Specific Plan area, designate it General Commercial (GC) and amend the freeway sign height and size standards; and Prezone the Project site Planned Unit Development (PUD). In addition, the Project includes a maximum of 466,000 square feet of commercial/office uses to be built on the Project site. The analysis of 466,000 square feet is consistent with the General Plan UR 2 statistical profile in terms of the percentage of land assumed for commercial/retail use (83 percent) and for office use (17 percent). After dedication of land for the Grant Line Road right-of-way, the net size of the site may be at or near 40 acres. The I-205 Corridor Specific Plan allows a floor area ratio (FAR) of up to 0.25 for retail land uses and 0.35 for one-story office uses. Applying the 0.25 FAR to 83 percent of the site (approximately 33 acres) and 0.35 to 17 percent of the site (approximately seven acres) yields approximately 466,000 square feet of floor area. This amount of floor area will be the assumed buildout for the Project. The inclusion of this scenario is necessary in order to evaluate the potential environmental consequences of the Project, since the City has not received an application for specific improvements to the Project site. Additional building area or more intense development would require additional analysis pursuant to the California Environmental Quality Act (CEQA).

3.2 PROJECT LOCATION

The Project site is located within San Joaquin County (County), immediately adjacent to the northwestern boundary of the City. The City occupies a central location in the San Joaquin Valley, 60 miles east of San Francisco and 68 miles south of Sacramento. Figure 3-1 (Regional Location Map) illustrates the regional location of the Project site. As shown in Figure 3-2 (Project Location), the triangular shaped site is bounded by Grant Line Road to the north, the Union Pacific Railroad (UPRR) line and Byron Road to the southwest, and the Tracy Marketplace Shopping Center to the east.

3.3 SURROUNDING LAND USES

The Project site is primarily surrounded by agricultural land and commercial uses with some rural residential development sparsely scattered throughout the surrounding agricultural area. Agricultural land is located north of the Project site, across Grant Line Road, and southwest of the site, across Byron Road. Vacant land lies between Bryon Road and the agricultural land further to the southwest. Three residences are located northeast of Grant Line Road, at the intersection of Grant Line Road and Lammers Road, one residence is located southwest of Byron Road (northwest of the intersection of Byron Road and Von Sosten Road) and another residence is located west of the Project site, west of the intersection of Grant Line Road and Byron Road. Commercial uses that are part of the Tracy Marketplace Shopping Center border the Project site to the east. These uses include retail stores, such as WalMart and Costco and restaurants, such as the Golden Corral Buffet & Grill. The Tracy Pavilion Shopping Center, another retail center, is located north of the Tracy Marketplace Shopping Center. The Tracy Pavilion Shopping Center contains several retail stores, including Home Depot and Marshalls. An auto mall is located north of the Tracy Pavilion Shopping Center and the West Valley Mall, a regional shopping center, is located just east of the auto mall. Other surrounding uses include Interstate 205 (I-205), which is generally south of the

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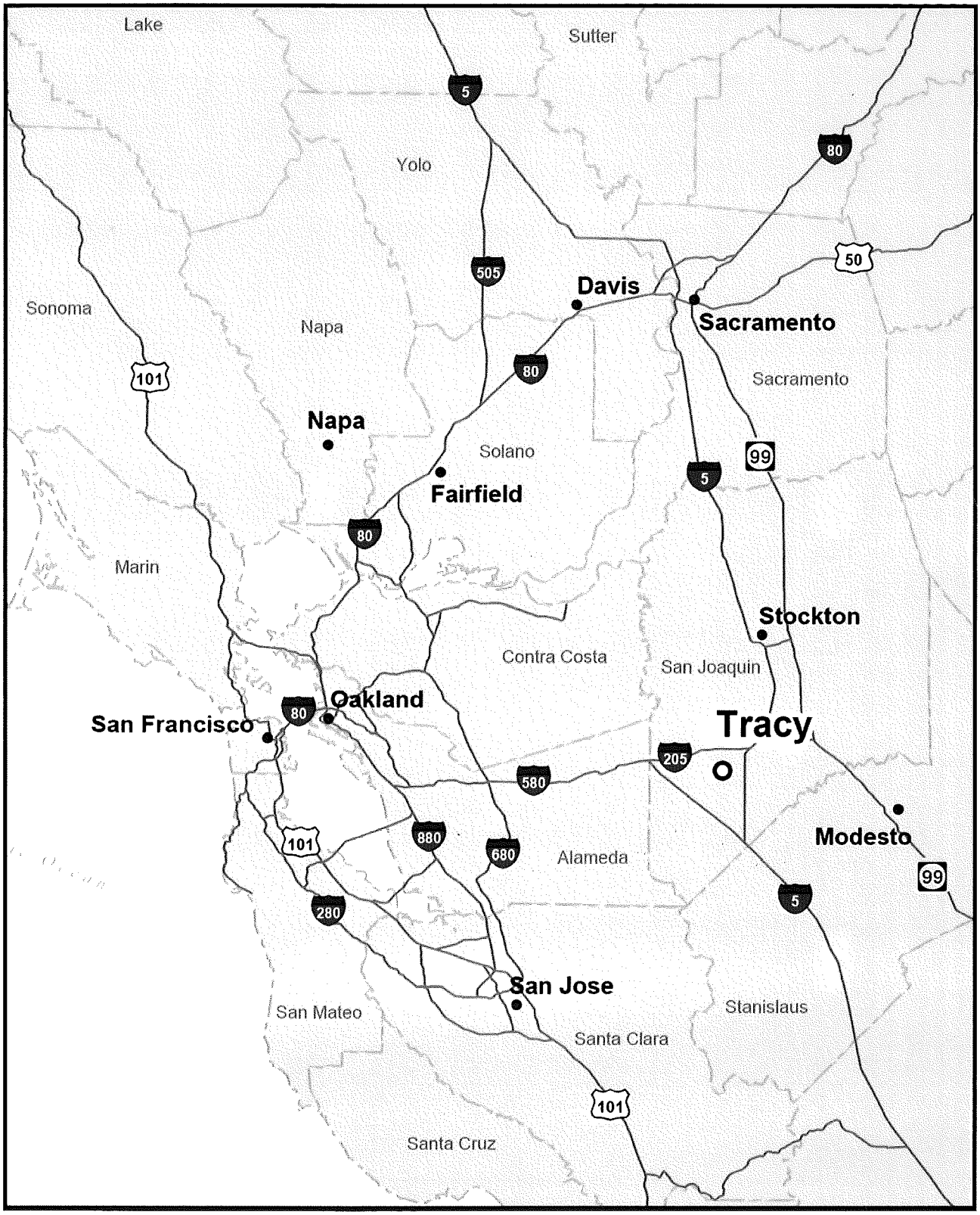


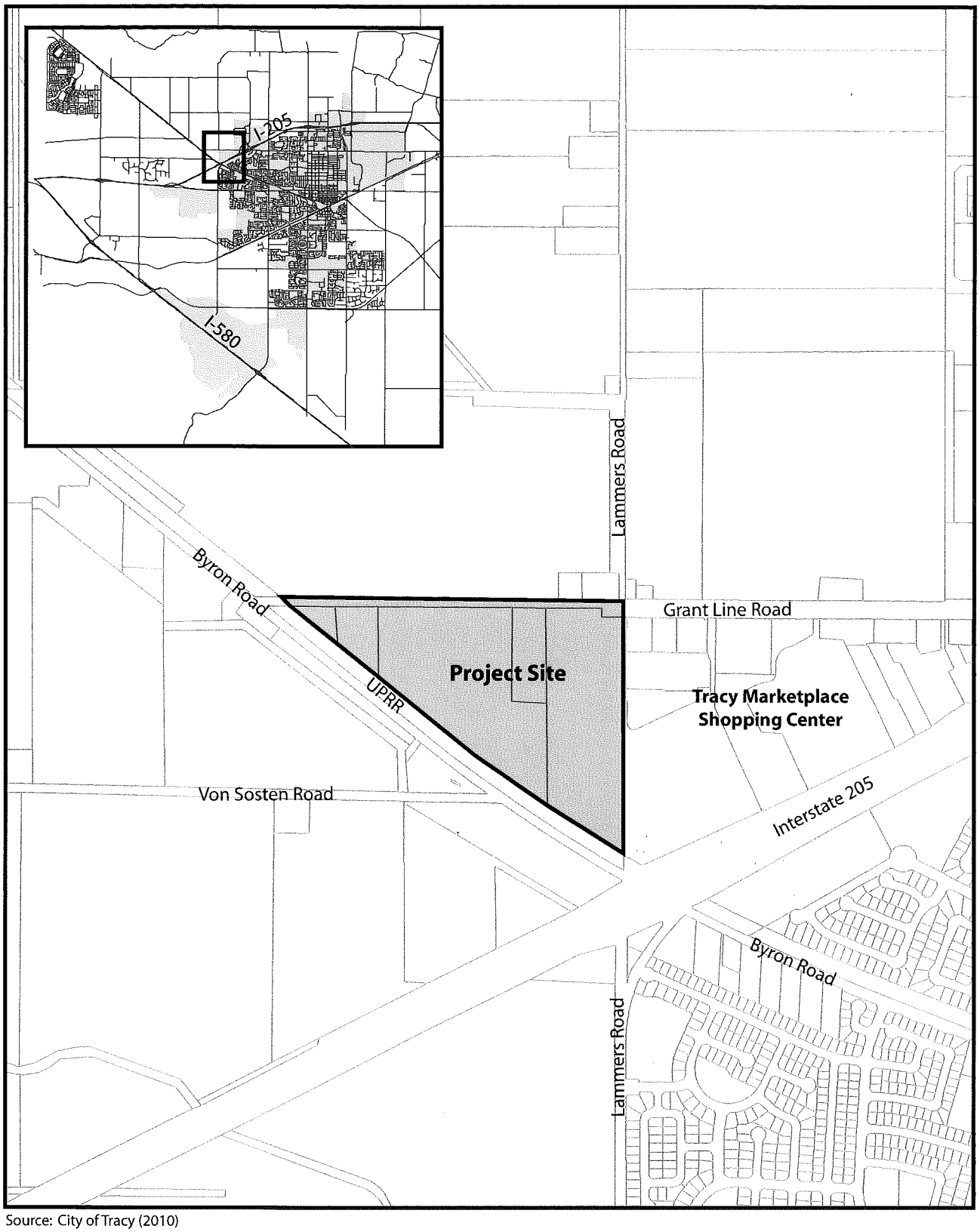
Source: Design, Community & Environment (DC&E) (2005)

RBF CONSULTING

Filios/Dobler Annexation EIR

Regional Location Map

Figure 3-1



Source: City of Tracy (2010)

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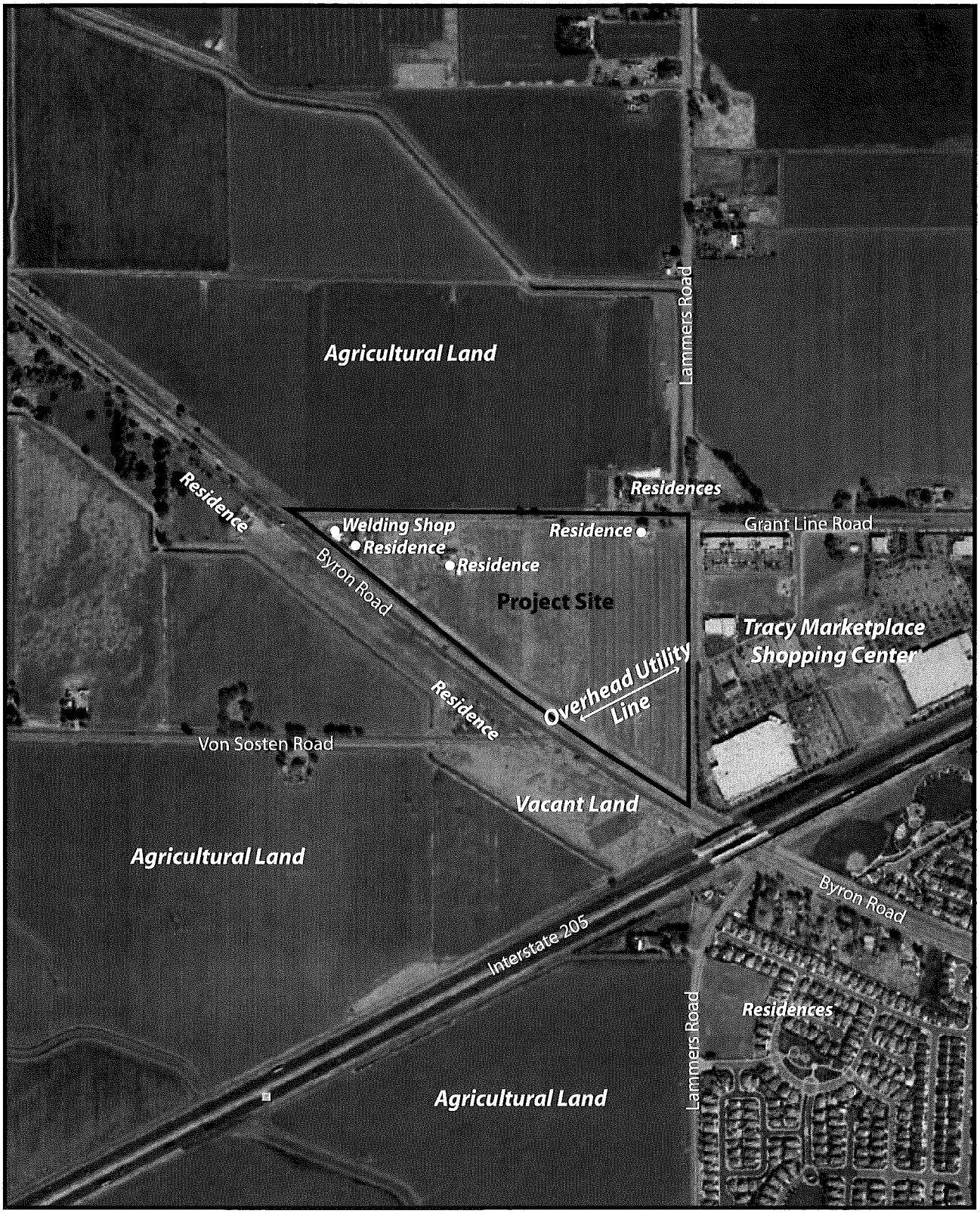
Filios/Dobler Annexation EIR

Project Location

Figure 3-2



Source: Google Earth (2010)

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Filios/Dobler Annexation EIR

Onsite and Surrounding Land Uses

Figure 3-3

Project site and the previously noted UPRR line that forms the southwestern site border. Surrounding and onsite land uses are depicted in Figure 3-3 (Onsite and Surrounding Land Uses).

3.4 PROJECT SETTING

3.4.1 SITE CHARACTERISTICS

The majority of the Project site consists of predominantly flat land that is actively in agricultural production for hay. There are three single-family residences and their associated accessory structures, as well as a welding shop located along the Grant Line Road frontage. Various ornamental landscaping surrounds the residences and welding shop. A Pacific Gas and Electric (PG&E) easement containing two power transmission lines and an underground natural gas pipeline are located in the southeastern portion of the Project site. The Hansen Sewer easement, containing a 30-inch diameter vylon close profile sewer pipe, is located along the PG&E easement in the southeast portion of the Project site. In addition, a City storm drainage easement exists along the east boundary of the site, adjacent to the Tracy Marketplace Shopping Center, containing two parallel concrete pipes and reinforced concrete junction boxes.

3.4.2 CITY AND COUNTY LAND USE REGULATIONS

The Project site is located within unincorporated San Joaquin County and is currently under the jurisdiction of the County and within the City's Sphere of Influence (SOI) and Planning Area. The Project site is composed of the following five parcels: 209-27-010, 209-27-011, 209-27-026, 209-27-030 and 209-27-031. Annexation would also include all of the Grant Line Road right-of-way fronting the Project site, from the City limit line (at Lammers Road) on the east to the east side of, and not including, the UPRR property on the west.

SAN JOAQUIN COUNTY GENERAL PLAN AND ZONING

The San Joaquin County General Plan (County General Plan) designates the Project site General Agriculture (A/G) and the County Zoning designation is General Agriculture (AG-40). The A/G land use designation applies to areas suitable for agriculture outside areas planned for urban development where the soils are capable of producing a wide variety of crops and/or supporting grazing; parcel sizes are generally large enough to support commercial agricultural activities; and there exists a commitment to commercial agriculture in the form of Williamson Act contracts and/or capital investments. Typical uses include crop production, feed and grain storage and sales, crop spraying and animal raising and sales. A maximum of one primary residence is allowed per 20 acres. The purpose of the AG Zone is to preserve agricultural lands for the continuation of commercial agriculture enterprises. Minimum parcel sizes within the AG Zone are 20, 40, 80 or 160 acres, as specified by the precise zoning. There are no Williamson Act contracts on these sites.

CITY OF TRACY SPHERE OF INFLUENCE AND PLANNING AREA

As noted above, the Project site is within the City's SOI and Planning Area. The City's SOI is the area that lies directly outside the City limits that the City expects to annex, grow into, and provide urban services to in the future. The City's Planning Area is the portion of County land outside the City's SOI where development could have an impact on the City's planning efforts.

CITY OF TRACY GENERAL PLAN

Because the Project site is within the City's SOI, the City General Plan establishes a land use designation for the site: UR 2. The UR designation is applied to relatively large, contiguous, undeveloped areas at the City's periphery where comprehensive planning must occur prior to urbanization. The purpose of the UR designation is to provide guidance regarding the vision and types of land uses allowed while allowing flexibility in the location of these uses. Each UR has a specific statistical profile that provides guidelines for the approximate mix of land uses. However, the City General Plan anticipates that the overall distribution and mixture of uses may change. The statistical profile for UR 2 envisions 367,000 square feet of commercial use and 78,000 square feet of office use for a total of 445,000 square feet, which is less than the maximum development intensity allowed for the Commercial land use designation by the City General Plan. Each area with a UR designation requires comprehensive planning and the preparation of a Specific Plan or PUD. In conjunction with a Specific Plan or PUD, a City General Plan amendment would be necessary to establish specific City General Plan land use designations for each parcel of land.

I-205 CORRIDOR SPECIFIC PLAN

The City approved and adopted the I-205 Corridor Specific Plan in 1990 and amended it thereafter from time to time. The I-205 Corridor Specific Plan area consists of approximately 714 acres of land that are split into two planning areas located on the northwest (Grant Line Planning Area) and northeast (MacArthur Planning Area) sides of the City, adjacent to I-205. The Grant Line Planning Area is further subdivided into northern (north of Grant Line Road) and southern (south of Grant Line Road) sections. The Project site is located adjacent to the western boundary of the Grant Line South Planning Area and the Project proposes adding the Project site to this portion of the I-205 Corridor Specific Plan area. The land uses in this area are now predominantly commercial and residential.

The I-205 Corridor Specific Plan is a comprehensive planning tool designed to help guide and facilitate commercial and industrial development along I-205. It provides for a variety of commercial and industrial uses, as well as residential uses and school and park facilities and addresses circulation and infrastructure necessary to support the uses identified by the plan. Development occurring in the I-205 Corridor Specific Plan area must comply with the design, land use and performance criteria for site development established by the I-205 Corridor Specific Plan.

CITY OF TRACY INFRASTRUCTURE MASTER PLANS

The City is currently in the process of updating the City's infrastructure master plans for transportation, water, wastewater, stormwater, parks, and public buildings and facilities to be consistent with the land use and development assumptions identified in the City General Plan. The infrastructure master plans describe how necessary public facilities will be provided for and their estimated costs. Specifically, the infrastructure master plans address the following:

- Transportation: the proposed distribution, location, extent and intensity of the major components of public and private transportation
- Water: water supply, treatment and transmission, including recycled water
- Wastewater: wastewater conveyance and treatment
- Stormwater: collection, storage, treatment and disposal
- Public buildings and facilities: including City buildings and facilities, libraries, police and fire facilities
- Parks and recreation facilities

3.5 PROJECT CHARACTERISTICS

The Project proposes annexation of the Project site to the City; an amendment to the City General Plan land use designation; an amendment to the I-205 Specific Plan to add the Project site to the Specific Plan area and designate it GC; and Prezoning the Project site PUD. In addition, the Project includes a maximum amount of commercial and office development assumed for the site of 466,000 square feet. The inclusion of this scenario is necessary in order to evaluate the potential environmental consequences of the Project (through construction), since the City has not received an application for specific improvements to the Project site.

3.5.1 ANNEXATION

The Project proposes the annexation of the approximately 43-acre Project site into the City to facilitate future retail/office development on the site, consistent with the vision of the City General Plan. As previously noted, the annexation would also include all of the Grant Line Road right-of-way fronting the Project site for proposed roadway widening. All or a portion of the Project site is within the boundaries of West Side Irrigation District (WSID). The lines connecting the site to WSID water supply sources were severed and the easement(s) abandoned years ago. When the Project site is annexed, the City will also request detachment of the site from the WSID.

3.5.2 CITY OF TRACY GENERAL PLAN AMENDMENT

The Project proposes an amendment to the City General Plan to re-designate the Project site from UR 2 to Commercial. According to the City General Plan, the Commercial designation allows for a relatively wide range of uses but focuses primarily on retail and consumer service activities that meet the needs of Tracy residents and employees as well as pass through travelers. Office uses are allowed in commercially designated areas. Appropriately scaled and designed residential development in the density ranges permitted in Residential High (RH) designation may be allowed, and other residential densities may be allowed in Areas of Special Consideration. Commercially designated land may have a maximum FAR[1] of 1.0.

Specific categories of commercial activity within this designation include general commercial, regional commercial and highway commercial. General commercial uses include grocery and convenience stores, salons, professional offices, restaurants, fast-food establishments, auto service stations, drug stores, dry cleaners, day care centers and banks. Adequate access, compatibility with other surrounding uses and consistent design with the community are all necessary for these uses. They should be located in centralized areas capable of serving the greatest number of households with the least travel distance and best access to alternate modes of transportation and freeways. Regional commercial uses (such as the I-205 regional commercial area), include factory outlets, discount stores, regional shopping malls, automobile sales, office uses, medical facilities and home improvement centers. These uses should be located in areas with the highest level of automobile access but should also contain a safe pedestrian environment. Highway commercial uses serve the needs of the traveling motorist and should be located in close proximity to freeway ramps. Appropriate uses include hotels and motels, restaurants, and motor vehicle and gasoline service stations that provide services to the traveling public and allow for convenient freeway access.

The I-205 regional commercial area in the northwest corner of the City contains a major concentration of land designated Commercial. The re-designation of the Project site from UR 2 to Commercial would

[1] FAR is calculated based on total building floor area in proportion to the size of the building's lot.

facilitate the future development of a mix of retail/office uses on the Project site, consistent with the existing development in the area and the assumptions in the City General Plan. It would also include an estimated 466,000 square feet of commercial and office development, which is within the range allowed by the City General Plan Commercial land use designation.

3.5.3 I-205 CORRIDOR SPECIFIC PLAN AMENDMENT

The Project proposes an amendment to the I-205 Corridor Specific Plan to expand the approximately 714-acre I-205 Corridor Specific Plan area to include the approximately 43-acre Project site, resulting in a total of approximately 757 acres of land within the Specific Plan area. More specifically, the Project site would be added to the Grant Line Planning area of the I-205 Corridor Specific Plan area, which is approximately 608 acres. This would result in a total of approximately 651 acres within the Grant Line Planning area. By adding the Project site to the I-205 Corridor Specific Plan area and designating it GC, any future development on the Project site would be subject to the design, land use and performance criteria established by the I-205 Corridor Specific Plan GC land use designation.

The GC land use designation is an all purpose zone suitable for most retail commercial uses. It provides for a broad variety of uses that are appropriately located on major thoroughfares. Patrons are encouraged to park once and visit several establishments. Coordinated parking is required. Examples of retail commercial uses that could develop within areas designated GC include apparel stores, drug stores, etc. Table 3-1 (General Commercial (GC) – Allowed Uses) identifies the permitted and conditionally permitted uses in the GC land use designation.

Table 3-1
General Commercial (GC) – Allowed Uses

Land Use	Permitted	Conditionally Permitted
Business Services e.g., reproduction, delivery, repair services	No	No
Day Care Centers e.g., community care facilities	Yes	-
Eating and Drinking Establishments e.g., restaurants, bars	Yes	-
Equipment Rental and Sales	No	No
Gas & Service Stations	No	Yes
Hydrocarbon Resource Extraction	No	Yes
Lodging e.g., hotels, motels	Yes	-
Manufacturing and Processing	No	No
Mini Storage	No	No
Outdoor Sales or Display of Merchandise e.g., lumber yards, nurseries, etc.	No	Yes
Offices e.g., medical, dental, business, professional, banks, financial services	Yes	-
Park & Ride or Offsite Parking Facilities	No	Yes
Personal Services e.g., nail, hair, tanning salons	Yes	-
Places of Assembly e.g., places of worship, private clubs, and related uses	No	Yes

Land Use	Permitted	Conditionally Permitted
Public Streets & Utilities	Yes	-
Recreational Uses e.g., miniature golf, bowling alley, instructional or educational performing arts, gymnastics, etc.	No	Yes
Residential Uses	No	No
Retail and Consumer Services e.g., building materials and hardware stores, garden center, clothing and show stores, department stores, drug stores and grocery stores	Yes	-
Schools e.g., public, private, trade, vocational, etc.	Yes	-
Temporary Uses as Permitted in TMC Sec. 10.08.4240	Yes[1]	-
Vehicle Sales, Service & Rental (1)	No	Yes
Warehouse & Distribution	No	No
Notes: 1. Uses permitted with a Temporary Use Permit		

According to the General Commercial and Industrial Standards identified in the I-205 Corridor Specific Plan, the site coverage and height of buildings within all Commercial and Industrial land use designations is governed by the land use of the building. Table 3-2 (General Commercial and Industrial Standards for Building Coverage and Height) shows the maximum allowable building coverage, FAR and building height for various types of buildings/land uses within the I-205 Corridor Specific Plan Commercial and Industrial land use designations.

Table 3-2
General Commercial and Industrial Standards for Building Coverage and Height

Land Use	Maximum Building Coverage	Maximum FAR	Maximum Building Height
Retail – Commercial Center	30%	0.30	55 feet
Retail – All other designations	25%	0.25	40 feet
Office – One-Story	35%	0.35	25 feet
Office – Two-Story	35%	0.40	40 feet
Office – Three-Story	35%	0.45	55 feet
Hotel/Motel	25%	0.40	55 feet
Restaurant – Free Standing	12.5%	0.125	40 feet
Van Court/Flextech	35%	0.35	One-Story (40 feet)
Light Manufacturing/ Assembly	45%	.45	One-Story (40 feet)
Warehouse/Distribution	50%	0.50	One-Story (40 feet)

Based on the allowed uses for the GC land use designation identified in Table 3-1 and the maximum allowable FARs for various land uses within the Commercial and Industrial land use designations identified in Table 3-2, the permitted land use in the GC land use designation that would have the greatest maximum building coverage (35 percent), greatest maximum FAR (0.45), and the tallest building height (55 feet) is a three-story office building. With an FAR of 0.45, approximately 842,886 square feet of office uses could be developed on the Project site. However, the maximum allowable commercial and

office square footage assumed for the Project site is 466,000 square feet. The future development of retail/office uses on the Project site would provide the opportunity to continue to attract regional commercial uses consistent and compatible with the adjacent shopping centers located within the I-205 Corridor Specific Plan area and the goals and objectives of the I-205 Corridor Specific Plan.

The Project also proposes an amendment to the freeway sign height and size standards specified in the I-205 Corridor Specific Plan to allow an 85-foot tall freeway sign with two 1,200-square-foot sign faces. According to the General Commercial and Industrial Standards identified in the I-205 Corridor Specific Plan, each commercial center may have one freeway identification sign. The sign may identify tenant(s) located within 700 feet of the freeway on any parcel within the center. The maximum allowable height is 15 feet above crown of the nearest freeway, not to exceed 45 feet above finished site grade. The maximum allowable sign area is 300 feet per sign face with a maximum of two sign faces.

3.5.4 PREZONING TO PLANNED UNIT DEVELOPMENT

The Project proposes Prezoning the site PUD consistent with Article 13 of Chapter 10.08 of the Tracy Municipal Code. According to the Tracy Municipal Code, the PUD Zone is "designed to allow flexibility and creativity in site planning for residential, commercial, or industrial uses to achieve greater efficiency in land use by maximizing open space, preserving natural amenities and creating additional amenities." The PUD Zone essentially allows for any and all uses, provided they conform to the City General Plan and the I-205 Corridor Specific Plan, and are indicated upon an approved development plan. In accordance with the City's PUD Ordinance (Section 10.08.1830 of the Tracy Municipal Code), all future development projects on the Project site would require the review and approval of Preliminary and Final Development Plans by the City's Planning Commission and City Council to evaluate and ensure compliance with site design, architecture, parking, land use and other City standards. As indicated in the I-205 Corridor Specific Plan, adding the Project site to the I-205 Corridor Specific Plan area would constitute Prezoning the site. Upon annexation of the Project site to the City, the land use designations of the I-205 Corridor Specific Plan would become the land use designations of the PUD Zone.

3.5.5 BUILDOUT SCENARIO FOR THE PROJECT SITE

As described above, under the proposed City General Plan Commercial land use designation and the I-205 Corridor Specific Plan GC designation, the Project site could accommodate a variety of commercial and office uses. At this time, the exact type of uses and their development intensity is unknown, as the City has not received a specific development application for the Project site. For the purposes of analysis in this Draft Environmental Impact Report (EIR), the development scenario assumed for the Project site is 466,000 square feet of commercial/office uses based on the assumptions of the City General Plan.

INFRASTRUCTURE AND SERVICES

The City would provide water, sanitary and storm sewer service to future development facilitated by the Project. Future development would connect to existing City water and sanitary sewer systems. A sewer line would be provided to convey wastewater from the site into the City's wastewater treatment facilities. A storm drain system would be constructed to convey surface water runoff to onsite catch basins or curb inlets and then to the existing storm drain system. Solid waste and recycling collection service would be provided by a private hauler (Tracy Delta Disposal Services) established through the City's franchise agreement. Other service providers would include SBC for telephone service; Pacific Gas & Electric for gas and electric service; and Comcast for cable television service.

3.6 PROJECT OBJECTIVES

Following are the Project objectives:

- Implement the City of Tracy General Plan
- Provide for the expansion of the City's regional commercial corridor
- Develop a Commercial Center of adequate size with reasonable freeway exposure (including a freestanding freeway sign) and access to attract new anchor tenants
- Remain consistent with the principles and objectives of the I-205 Corridor Specific Plan
- Provide and maintain connectivity with the existing shopping areas of the I-205 Corridor Specific Plan and increase opportunities for connectivity to residential areas south of the Project site
- Construct commercial and office buildings consistent with the development potential anticipated for the Project site by the City General Plan

3.7 INTENDED USES OF THIS EIR

The analysis in this EIR has been prepared at a project-level for the proposed annexation of the Project site to the City, amendments to the General Plan and I-205 Specific Plan, and Prezoning the Project site. Development proposals that require discretionary review (i.e., projects subject to the approval of a Preliminary and Final Development Plan) will be examined in light of this EIR to determine if any additional environmental documentation is required, pursuant to CEQA Guidelines Section 15168(c).

This EIR is intended to cover the approvals that have been requested, and is also intended to cover those required to construct or implement the Project, whether or not they are explicitly listed below. The City is the lead agency for the Project and has the principal discretionary authority over the review of Project applications and consideration of Project approvals. As described below, these include:

- Annexation of the Project site to the City
- A General Plan Amendment to re-designate the Project site from UR 2 to Commercial to facilitate the future development of commercial and office uses on the Project site
- An amendment to the I-205 Corridor Specific Plan to add the 43-acre Project site to the I-205 Corridor Specific Plan area, designate the site GC and amend the freeway sign standards
- A Prezoning to designate the site PUD
- Project construction and related improvements

This EIR is also available for use by responsible and trustee agencies or other agencies that may have jurisdiction or approval authority for the Project. These agencies may include:

- California Department of Fish and Game
- U.S. Fish and Wildlife Service
- U.S. Army Corps of Engineers
- California Regional Water Quality Control Board
- San Joaquin Air Pollution Control District
- Department of Toxic Substances Control
- San Joaquin County LAFCO

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4.0 ENVIRONMENTAL ANALYSIS

4.1 INTRODUCTION

This chapter discusses the potential environmental impacts and presents the findings of the environmental analysis conducted for this Draft Environmental Impact Report (Draft EIR), as required by the California Environmental Quality Act (CEQA). The following environmental issues are evaluated in Sections 4.2 through 4.14: Land Use and Planning, Aesthetics, Agricultural Resources, Air Quality, Greenhouse Gas Emissions, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Public Services, Utilities and Service Systems, and Transportation/ Traffic.

4.1.1 ORGANIZATION OF CHAPTER

Each of the sections in this chapter are organized as follows:

- **Existing Conditions** are on-site and surrounding environmental conditions in existence at the time of publication of the Notice of Preparation (NOP), as well as relevant regulatory standards and requirements.
- **Environmental Analysis** first specifies the applicable significance thresholds (i.e., criteria by which the level of significance of each potential impact is evaluated), and then describes changes that would result in the existing physical environment should the proposed project be implemented. The analysis focuses on the changes that might be significant impacts if the project is implemented.

Project impacts are identified within each section. A summary of the potential impact is presented first, its level of significance is specified second, environmental analysis is provided third, and any required mitigation is identified last. If mitigation is required, the section concludes with the residual level of significance after mitigation.

4.1.2 MITIGATION MEASURES

Potentially feasible mitigation measures must be identified when significant impacts are identified. Adopted mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments. Each mitigation measure is numbered sequentially so that it directly correlates to the impact it addresses.

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4.2 LAND USE AND PLANNING

This section evaluates the proposed Project's compatibility with existing land uses and its consistency with relevant planning policies, which were adopted for the purpose of avoiding or mitigating an environmental effect. For the most part, direct and indirect physical impacts resulting from Project implementation are not addressed in this section, but rather in their appropriate technical sections of the EIR. For example, direct impacts such as dust and noise from Project construction are addressed in Section 4.5 (Air Quality) and Section 4.12 (Noise), respectively.

4.2.1 ENVIRONMENTAL SETTING

SITE CHARACTERISTICS

The approximately 43-acre Project site is located in unincorporated San Joaquin County (County), immediately adjacent to the northwestern boundary of the City of Tracy (City). The triangular shaped site is bounded by Grant Line Road to the north, the Union Pacific Railroad (UPRR) line and Byron Road to the southwest and the Tracy Marketplace Shopping Center to the east. The majority of the Project site consists of predominantly flat land that is actively in agricultural production for hay. There are three single-family residences and their associated accessory structures, as well as a welding shop located along the Grant Line Road frontage. Various ornamental landscaping surrounds the residences and welding shop. A Pacific Gas and Electric (PG&E) easement containing two power transmission lines and an underground natural gas pipeline are located in the southeastern portion of the Project site. The Hansen Sewer easement, containing a 30-inch diameter vylon close profile sewer pipe, is located along the PG&E easement in the southeast portion of the Project site. In addition, a City storm drainage easement exists along the east boundary of the site, adjacent to the Tracy Marketplace Shopping Center, containing two parallel concrete pipes and reinforced concrete junction boxes.

SURROUNDING LAND USES

Agricultural land with sparsely scattered rural residential development and commercial uses surround the Project site. The agricultural/rural residential uses are located to the north and southwest. Commercial uses that are part of the Tracy Marketplace Shopping Center border the Project site to the east. The Tracy Pavilion Shopping Center, another retail center, is located north of the Tracy Marketplace Shopping Center. An auto mall is located north of the Tracy Pavilion Shopping Center and the West Valley Mall, a regional shopping center, is located just east of the auto mall. Other surrounding uses include Interstate 205 (I-205), which is generally south of the Project site and the previously noted UPRR line that forms the southwestern site border.

4.2.2 REGULATORY SETTING

LOCAL FRAMEWORK

The Project site is currently under the jurisdiction of the County and within the City's Sphere of Influence (SOI) and Planning Area.

San Joaquin County General Plan and Zoning

The San Joaquin County General Plan (County General Plan) is the long term policy guide for physical development of the County. The County General Plan consists of goals, objectives, policies and implementation programs that help direct and shape the growth of the County. The County General Plan

designates the Project site General Agriculture (A/G). The A/G land use designation applies to areas suitable for agriculture outside areas planned for urban development where the soils are capable of producing a wide variety of crops and/or supporting grazing; parcel sizes are generally large enough to support commercial agricultural activities; and there exists a commitment to commercial agriculture in the form of Williamson Act contracts and/or capital investments. Typical uses include crop production, feed and grain storage and sales, crop spraying, and animal raising and sales. A maximum of one primary residence is allowed per 20 acres.

The County Zoning designation is General Agriculture (AG-40). The purpose of the AG Zone is to preserve agricultural lands for the continuation of commercial agriculture enterprises. Minimum parcel sizes within the AG Zone are 20, 40, 80 or 160 acres, as specified by the precise zoning.

The Project includes a request to annex the Project site into the City.

City of Tracy Sphere of Influence and Planning Area

The City's SOI is the area that lies directly outside the City limits that the City expects to annex, grow into and provide urban services to in the future. A Local Agency Formation Commission (LAFCO) of a county determines a city's SOI at the request of the city. LAFCOs are responsible for coordinating logical and timely changes in local government boundaries.

The City Planning Area is the portion of County land outside the City's SOI where development could have an impact on the City's planning efforts. The City's Planning Area is larger than its SOI, as it extends well beyond the area that the City expects to grow into in the future. The County is responsible for planning the anticipated growth and development patterns of the lands that are outside of City's SOI, but inside the City's Planning Area.

City of Tracy General Plan

The City of Tracy General Plan (City General Plan) is a long-range "blueprint" for the City. It defines the framework by which the City's physical and economic resources are to be managed and used in the future. The City General Plan is a comprehensive document that includes seven mandatory elements in accordance with State law. These elements are Land Use, Circulation, Noise, Safety, Conservation and Open Space and Housing. In addition to the seven mandatory elements, the City General Plan includes the following elements: Community Character, Economic Development, Public Facilities and Services, and Air Quality. The discussion below focuses on the Land Use and Community Character Elements as they are the elements of the City General Plan that are most relevant to the analysis of land use consistency required under the California Environmental Quality Act (CEQA).

Land Use Element

The Land Use Element of the City General Plan sets forth specific goals, objectives, policies and actions to guide land use in the City and its SOI. The purpose of the Land Use Element is to shape the future physical development of the City and to preserve, protect and enhance City's current quality of life.

Land Use Designation

The City General Plan designates the Project site Urban Reserve 2 (UR 2). The UR designation is applied to relatively large, contiguous, undeveloped areas at the City's periphery where comprehensive planning must occur prior to urbanization. The purpose of the UR designation is to provide guidance regarding the

vision and types of land uses allowed while allowing flexibility in the location of these uses. The City General Plan envisions the majority of UR 2 as primarily commercial with some office uses and includes two provisions regarding future site design. The first provision is that consideration should be given to the relationship between the location, intensity of land uses and site layout along the boundary shared by UR 2 and adjacent areas, including UR 4 and the surrounding parcels designated as Commercial. The second provision is that development along Byron Road should incorporate urban design features that enhance this area as an entryway to the City.

Each UR has a specific statistical profile that provides guidelines for the approximate mix of land uses. However, the City General Plan anticipates that the overall distribution and mixture of uses may change. The statistical profile for UR 2 envisions 367,000 square feet of commercial use and 78,000 square feet of office use for a total of 445,000 square feet, which is less than the maximum development intensity allowed if the site were designated solely Commercial by the City General Plan. Each area with a UR designation requires comprehensive planning and the preparation of a Specific Plan or Planned Unit Development (PUD). In conjunction with a Specific Plan or PUD, a City General Plan amendment would be necessary to establish specific City General Plan land use designations for each parcel of land.

The Commercial land use designation allows for a relatively wide range of uses, but focuses primarily on retail and consumer service activities that meet the needs of Tracy residents and employees as well as pass through travelers. Office uses are allowed in commercially designated areas. Appropriately scaled and designed residential development in the density ranges permitted in Residential High (RH) may be allowed. Regardless of configuration, there should be an attempt in both locational criteria and design criteria to be as accessible and appealing to the pedestrian as possible to encourage walking and biking. Commercially designated land may have a maximum FAR of 1.0. Specific categories of commercial activity within the Commercial designation include general commercial, regional commercial and highway commercial. General commercial uses include grocery and convenience stores, salons, professional offices, restaurant, fast-food establishments, auto service stations, drug stores, dry cleaners, day care centers and banks. Regional commercial uses (such as the I-205 Regional Commercial Area), include factory outlets, discount stores, regional shopping malls, automobile sales, office uses, medical facilities and home improvement centers. Highway commercial uses include hotels and motels, restaurants, and motor vehicle and gasoline service stations that provide services to the traveling public and allow for convenient freeway access.

Policies Relevant to the Proposed Project

The Land Use Element contains many goals, objectives, policies and actions to guide the City's decision making for land use and development. The following are relevant to the proposed Project:

Goal LU-1	A balanced and orderly pattern of growth in the City.
Objective LU-1.1	Establish a clearly defined urban form and city structure.
Policy P1	New development and redevelopment in existing areas shall be organized as a series of residential Neighborhoods, Employment Areas, Corridors, Village Centers, the Downtown and the 1-205 Regional Commercial Area. The I-205 Regional Commercial Area is a special district north of I-205 that contains big-box retail, automobile sales establishments and a large, regional shopping mall.
Objective LU-1.2	Comprehensively plan for new development in the City's Sphere of Influence.

Policy P3	The first application for development in each Urban Reserve shall be responsible for preparing a General Plan amendment to establish specific land use designations for each parcel of land within the Urban Reserve and a Specific Plan or PUD for the entire Urban Reserve area. When the development intended for areas within an Urban Reserve is initiated solely to accommodate schools, parks, and public facilities, then the requirement to prepare comprehensive Specific Plans or PUDs for the entire area does not apply until development of commercial, industrial, office or residential development is proposed.
Goal LU-2	Expanded economic opportunities in Tracy.
Objective LU-2.2	Expand the City's retail base.
Policy P1	Regional-scale retail development, such as shopping malls, big-box retail and auto sales, shall be primarily located in the I-205 Regional Commercial Area.
Objective LU-2.4	Ensure adequate land for office development.
Policy P2	Small-scale office uses should be located in the following areas: Identified mixed-use corridors, such as Eleventh Street, Tracy Boulevard and Grant Line Road.
Goal LU-8	No urbanization in unincorporated County areas as defined by this General Plan or the San Joaquin County General Plan, whichever is more restrictive, without annexation to the City, a pre-annexation agreement or a letter of support from the City.

Community Character Element

The Community Character Element expands on the Land Use Element by providing policy direction on the type, location, and character of new and existing developments. The I-205 Regional Commercial Center is recognized as one of the building blocks of the City, which serves as the City's primary retail environment outside of the Downtown. The Element notes that achieving the "home town feel" as the overarching design objective in the I-205 Regional Commercial Area is difficult due to the function of the center as a regional destination, the predominance of large scale buildings, and geographic separation from the largely residential areas to the south. The Element also states that future expansion within the area should integrate physically to existing uses and should continue to emphasize high quality architecture, landscaping and site planning.

City of Tracy Municipal Code

The City Municipal Code carries out the policies of the City General Plan by classifying and regulating the uses of land and structures within the City, consistent with the General Plan. The purpose of the Municipal Code is to protect and promote the public health, safety, comfort, convenience, prosperity, and general welfare of residents and businesses in the City. The City's existing Zoning Map does not identify zoning designations for the Project site since it is currently located outside City limits.

I-205 Corridor Specific Plan

The I-205 Corridor Specific Plan is a comprehensive planning tool designed to help guide and facilitate commercial and industrial development along I-205. It provides for a variety of commercial and industrial

uses, as well as residential uses and school and park facilities, and addresses circulation and infrastructure necessary to support the uses identified by the plan. Development occurring in the I-205 Corridor Specific Plan area must comply with the design, land use and performance criteria for site development established by the I-205 Corridor Specific Plan. The Project site is located adjacent to the western boundary of the Grant Line South Planning Area of the I-205 Specific Plan and the Project proposes to add the site to this portion of the plan area. The land uses in this area are predominantly commercial and residential.

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

The Project site lies within the coverage area of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) (SJCOG 2001). The SJMSCP states that its key purpose 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 or the California Endangered Species Act; 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."

The 50-year plan addresses impacts on special-status plant, fish and wildlife species found throughout San Joaquin County and compensates for conversion of open space for a range of uses, including urban development. Certain parcels of agricultural lands, including perennial and annual crops, are classified as Agricultural Habitat Lands by the SJMSCP. This classification requires a one-to-one ratio of agricultural habitat land compensation for every acre of agricultural habitat land that is developed with urban uses. Thus, for every acre of agricultural habitat land that is converted from open space, one acre must be preserved, acquired, enhanced and managed in perpetuity somewhere else in San Joaquin County. Some agricultural and range lands are classified instead as Natural Lands, which increases the required ratio to three acres for every one acre converted from open space. In some instances, an appropriate in lieu fee may be paid instead. According to the SJMSCP, City of Tracy Compensation Map (Revised 2006), the Project site is classified as Agricultural Habitat Land and its conversion to urban use would require either a one-to-one compensation ratio for every acre converted or payment of the appropriate fee.

Participation in the SJMSCP is voluntary for both local jurisdictions and project applicants. Only agencies that adopted the SJMSCP would be covered by the SJMSCP. The City adopted the SJMSCP on November 6, 2001. Individual project applicants have two options if their project is located in a jurisdiction participating in the SJMSCP: mitigating under the SJMSCP or negotiating directly with the state and/or federal permitting agencies. If a project applicant opts for SJMSCP coverage in a jurisdiction that is participating under the SJMSCP, the following options are available, unless their activities are otherwise exempted: pay the appropriate fee; dedicate, as conservation easements or fee title, habitat lands; purchase approved mitigation bank credits; or propose an alternative mitigation plan.

4.2.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant impact on land use and planning if it would:

- Physically divide an established community

- Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect
- Conflict with any applicable habitat conservation plan or natural community plan

AREAS OF NO PROJECT IMPACT

The following impacts are either not applicable to the project or not reasonably foreseeable:

- Physically divide an established community

The Project site is surrounded by agricultural/rural residential uses to the north and southwest and commercial uses to the east. These surrounding land uses do not form an established community. Therefore, the future commercial and office development facilitated by the proposed Project would not physically divide an established community. Thus, no impact would result.

- Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect

San Joaquin County General Plan and Zoning Ordinance

The Project proposes to annex the Project site into the City. After that occurs, the County General Plan and Zoning Ordinance would no longer govern the Project site, as it would then be governed by the City General Plan and Municipal Code. Therefore, the proposed Project was not reviewed for consistency with the policies and objectives of the San Joaquin County General Plan and Zoning Ordinance.

City of Tracy General Plan

As described above, the Project proposes the annexation of the Project site into the City and after which, the City General Plan would govern the site. The City General Plan designates the Project site UR 2 and envisions 367,000 square feet of commercial use and 78,000 square feet of office use on the Project site for a total of 445,000 square feet. According to the General Plan, the purpose of the UR designation is to provide guidance regarding the vision and types of land uses allowed while allowing flexibility in the location of these uses therefore, the overall distribution and mixture of uses may change. The Project proposes an amendment to the City General Plan to re-designate the Project site from UR 2 to Commercial. The Commercial designation allows for a relatively wide range of uses but focuses primarily on retail and consumer service activities that meet the needs of Tracy residents and employees, as well as pass through travelers. Office uses are allowed in commercially designated areas. The adjacent I-205 regional commercial area contains a major concentration of land designated Commercial. The re-designation of the Project site from UR 2 to Commercial would facilitate the future development of a mix of retail/office uses on the Project site, consistent with the existing development in the area and the assumptions in the City General Plan. It would also include an estimated 466,000 square feet of commercial and office development, which is within the range allowed by the City General Plan Commercial land use designation.

The Project proposes annexation of the Project site to the City; an amendment to the City General Plan land use designation from UR 2 to Commercial; an amendment to the I-205 Corridor Specific Plan to add the Project site to the Specific Plan area and designate it General Commercial (GC); and Prezoning the Project site Planned Unit Development (PUD). These actions would collectively ensure balanced and orderly growth within the City through comprehensive planning for UR 2 that would establish a clearly defined urban form that is part of the 1-205 Regional Commercial Area, consistent with relevant goals,

objectives and policies of the Land Use Element. In addition, the entitlements requested by the Project would facilitate future retail/office development within the I-205 Regional Commercial Area, which would expand the City's economic opportunities and retail base, consistent with relevant goals, objectives and policies of the Land Use Element.

City of Tracy Municipal Code

The City's existing Zoning Map does not identify any zoning designations for the Project site, since it is not currently within the City's jurisdiction. The Project proposes the annexation of the Project site into the City. In addition, the Project proposes Prezoning the Project site PUD consistent with Article 13 of Chapter 10.08 of the Tracy Municipal Code. The Zoning Map would be amended to reflect this change. The proposed Prezoning would allow a variety of commercial and office uses to develop on the site. These uses would be consistent with commercial uses located to the east of the Project site. Prezoning the site would also allow for additional flexibility during the development process instead of amending the Tracy Municipal Code to reflect the Specific Plan land use designations.

I-205 Corridor Specific Plan

The proposed amendment to the I-205 Corridor Specific Plan to add the Project site to the Specific Plan area and designate it General Commercial (GC) is compatible with the goals and policies of the I-205 Corridor Specific Plan, which promote the development of commercial and industrial uses along I-205, and follows the overall conversion of land use designations and development patterns in the area. Moreover, adding the Project site to the I-205 Corridor Specific Plan area and designating it GC would ensure that any future development on the Project site would be consistent with existing and future uses within the I-205 Corridor Specific Plan Area, as any future development on the Project site would be subject to the design, land use and performance criteria established by the I-205 Corridor Specific Plan GC land use designation.

POTENTIAL IMPACTS AND MITIGATION MEASURES

4.2-1 THE PROPOSED PROJECT COULD CONFLICT WITH THE SAN JOAQUIN COUNTY MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

As described above, the Project site lies within the coverage area of the SJMSCP (SJCOG 2001). The Project proposes annexation of land into the existing incorporated City limits and is located immediately adjacent to the boundaries of the defined community.

Although participation in the SJMSCP is not mandatory, and impacts can be mitigated through other avenues not prescribed in the SJMSCP, it is anticipated that the Project property owners would elect to participate. Mitigation Measure 4.2-1, identified below, would compensate for the loss of Agricultural Habitat Land and its conversion to urban use, fulfilling the mitigation requirements of the SJMSCP. Therefore, with implementation of Mitigation Measure 4.2-1, the Project would not conflict with an applicable habitat conservation plan, resulting in a less than significant impact.

Mitigation Measure:

4.2-1 Prior to the issuance of building permits, the Project property owners shall either pay the appropriate fee or dedicate, as conservation easements or fee title, habitat lands as prescribed by the San Joaquin County Council of Governments to compensate for the loss of Habitat Land and its conversion to urban use.

Level of Significance After Mitigation: Less Than Significant Impact.

4.2.4 ANALYSIS OF CUMULATIVE IMPACTS

The analysis of cumulative land use and planning impacts considers the larger context of future development of the City as envisioned by the City General Plan and relies upon the projections of the City General Plan and City General Plan EIR. Cumulative land use impacts would result from incremental changes in land use that cause substantial disruption within the established community or conflicts with adopted plans and policies related to avoidance or mitigation of environmental effects. Currently, the site is largely undeveloped with some agricultural uses. The area surrounding the site is either developed with commercial uses or agricultural uses that have scattered rural residential development.

The City General Plan EIR analyzed the long-term development of the City and found that no significant impacts relative to land use and planning would occur with implementation of the City General Plan. The proposed Project would generally be consistent with the City General Plan vision for UR 2. However, the proposed Project would increase the amount of commercial and office use compared to the projections of the City General Plan and City General Plan EIR. Thus, the proposed Project would potentially allow more commercial and job generating uses compared to the projections of the City General Plan and City General Plan EIR. Nonetheless, these changes would not cause substantial disruption within the established community or conflict with adopted plans and policies related to avoidance or mitigation of environmental effects. Therefore, no cumulative impacts relative to land use and planning are expected with implementation of the proposed Project.

4.3 AESTHETICS

This section assesses the potential for aesthetics/light and glare impacts using accepted methods of evaluating visual landscape quality, as well as identifying the type and degree of change that would result from the proposed Project. The analysis in this section is primarily based on Project information provided by the City of Tracy (City) and verified through a site visit conducted by RBF Consulting on August 11, 2010. A photographic inventory of the Project site was conducted by RBF at the time of the site visit. Where additional information has been used to evaluate the potential impacts, that information has been referenced.

4.3.1 EXISTING SETTING

The approximately 43-acre Project site is situated within the urban fringe of the City and consists of rural agricultural and residential uses and is surrounded by rural residential, agricultural, grazing, and vacant lands, as well as a developed shopping center (sited to the east of the Project site). Onsite topography ranges from approximately 22 to 30 feet above mean sea level (msl), and generally slopes to the north. The majority of the Project site consists of predominantly flat land that is actively used for the agricultural production of hay. The following is a detailed description of surrounding land uses:

- North: Agricultural, grazing, and residential uses are located north and northeast of the Project site, across Grant Line Road.
- East: The Tracy Marketplace Shopping Center is located to the east of the Project site. These commercial uses include, but are not limited to, retail stores (such as Costco, Les Schwab Tire Center, and Wal-Mart) and restaurants (such as Burger King, Taco Bell, and Golden Corral Buffet & Grill).
- South: Interstate 205 (I-205) and the Union Pacific Railroad (UPRR) trends northwest/southeast along the southwestern boundary of the Project site. Agricultural, residential, and vacant land uses are located to the south and southwest of the Project site.
- West: Agricultural, residential, and vacant land uses are located to the west of the Project site.

EXISTING AESTHETIC/LIGHT AND GLARE CONDITIONS

San Joaquin County occupies a central location in the San Joaquin Valley (California's main agricultural production area). The County encompasses nearly 920,000 acres of relatively flat, agricultural productive lands. The foothills of the Diablo Range define the southwestern portion of the County, and the foothills of the Sierra Nevada range lie along the County's eastern boundary.

The City, located east of the Coastal Range that separates the Central Valley from the San Francisco Bay Area (Bay Area), began as an agricultural community centered on several rail lines. The City has transitioned into a residential community, as more people move inland from the Bay area seeking more affordable housing. The overall physical design of the City is characterized as a small town with residential neighborhoods, job centers, and shopping districts.

The major transportation corridor through the City is I-205, along which commercial and industrial activities have developed. As the significance of this corridor has grown as a commercial and industrial center, the City developed the I-205 Corridor Specific Plan.

Development within the I-205 Corridor Specific Plan (to the east of the Project site) provides a unique setting in the City where the West Valley Mall, big-box retailers, large scale food stores, and hotels are

concentrated in close proximity to create a retail center that serves the City and region. The I-205 Corridor Specific Plan area is a destination-oriented development and serves as the City's primary retail environment outside of the Downtown area.

VISUAL CHARACTER/QUALITY

RBF Consulting conducted a photographic inventory of the Project area to document the existing visual character and quality of the Project site and its surroundings; refer to Figure 4.3-1 (Existing Conditions). The Project site is situated along the City's urban fringe. Prominent factors that influence the character of the Project area are the rural residential, agricultural, and grazing lands, as well as the Tracy Marketplace Shopping Center to the east of the Project site. The existing onsite structures front West Grant Line Road along the northern Project boundary and appear rural in character and are no higher than one-story. No native vegetation is located onsite. Ornamental landscaping associated with the onsite residential uses is present. No water features are located within the Project site.

SCENIC VIEWS AND VISTAS

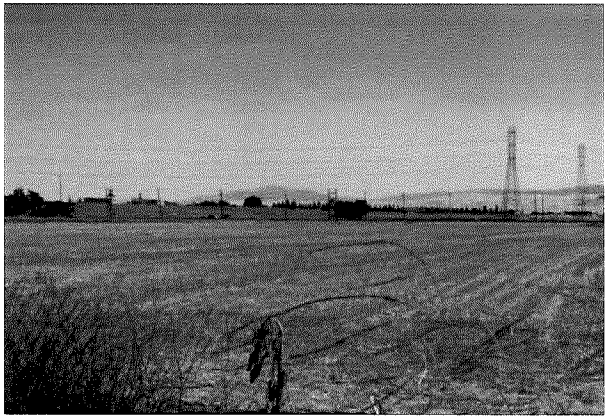
The majority of the City's scenic vistas and corridors are associated with the open space and agricultural resources situated outside of the City's Sphere of Influence and are a valued local asset for the community. The surrounding farming and grazing lands and grassy hillsides of the Diablo coastal range serve to situate the City in its local environment and landscape.

The scenic resources that are located outside the City's sphere of influence, particularly in the viewshed of the designated scenic routes, are generally controlled by the development guidelines implemented by the County. Scenic resources in the Project's viewshed include the following:

- Views of the Diablo Range. Rising from the southwest portion of the City, this range extends from near sea level to 1,652 feet and provides a visual barrier between the Central Valley and the Bay Area. Generally, the eastern slopes visible from the City have not been developed and contain sporadic tree groupings.
- Expansive Agricultural Lands. The areas surrounding the City contain agricultural lands that are used for row crops and grazing.
- Hillside Areas. Hillside areas, located along the southwestern portion of the City to the west of Interstate 580 (I-580), including in the Tracy Hills Specific Plan area, are a visual amenity for residents of the City as well as travelers on I-580.
- Electricity-Generating Windfarms. Located on the ridgetops, west of the City and close to the Altamont Pass, the windfarms are visible from the City on clear days.
- Roadways. Roadways leading to and through the City are aesthetically important since they expose both travelers and residents to the visual character of the City and the surrounding area as they travel through the area, or commute back and forth to work beyond the City limits.

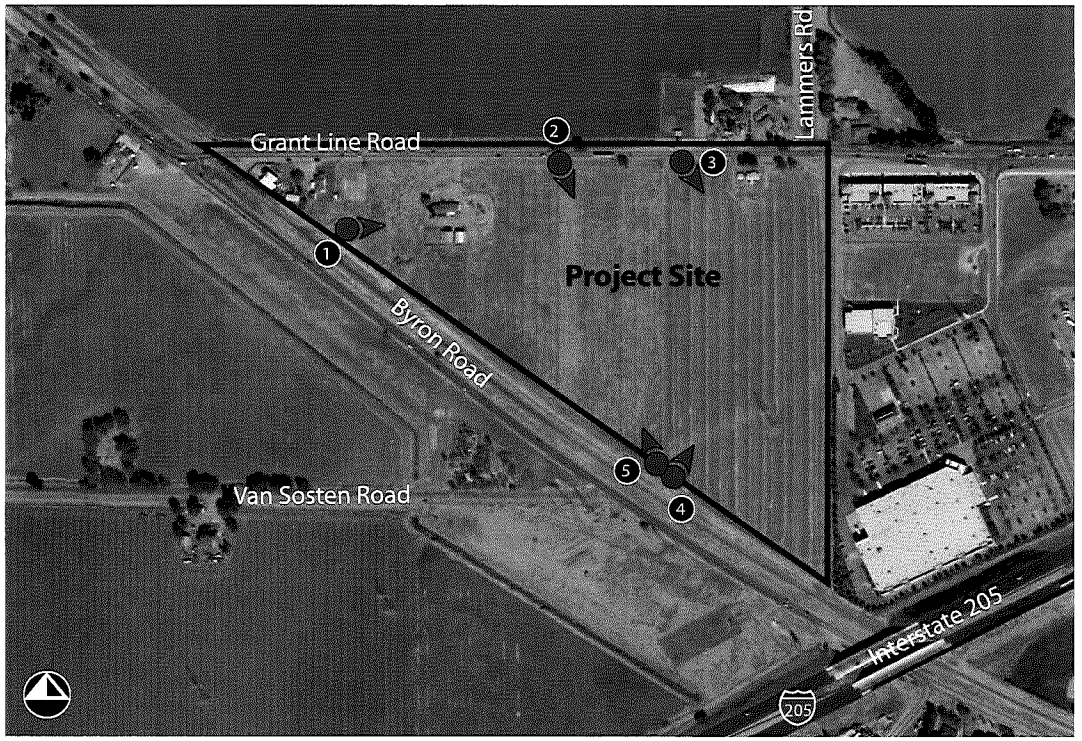
Entrances to the City from major roadways are called "entry corridors" or "gateways." They are important for providing both visitors and residents with their initial impression of Tracy and a transition from a rural to urban environment. Drivers heading west on I-205 are provided with views of the surrounding lands and coastal range beyond the City to the southwest. There are no designated gateways located within the viewshed of the Project site.

1 View of on-site rural residential and grazing land uses.



2 View of on-site fallow agricultural and vacant land.

3 View of on-site agricultural land uses.



Orientation

1 Photograph Number

4 View of on-site agricultural and off-site commercial/retail land uses.

5 View of on-site rural residential, agricultural, and vacant land uses.

RBF CONSULTING

Filios/Dobler Annexation EIR

Existing Conditions

Figure 4.3-1

STATE SCENIC HIGHWAYS

The State Scenic Highway System includes a list of highways that are either currently designated as scenic highways by the State or are eligible for that designation. There are no designated or eligible State scenic highways located within the viewshed of the Project site.[1] The designated State Scenic Highway I-580 (between I-205 and I-5), located approximately 3.75 miles southwest of the Project site, does not include views toward the Project site as a result of intervening structures, vegetation, distance, and topography.

LIGHT AND GLARE

Lighting effects are associated with the use of artificial light during the evening and nighttime hours. There are two primary sources of light: light emanating from building interiors passing through windows and light from exterior sources (i.e., street lighting, building illumination, security lighting, parking lot lighting, and landscape lighting). Light introduction can be a nuisance to adjacent residential areas, diminish the view of the clear night sky, and if uncontrolled, can cause disturbances. Uses such as residences and hotels are considered light sensitive, since occupants have expectations of privacy during evening hours and may be subject to disturbance by bright light sources. Light spill is typically defined as the presence of unwanted light on properties adjacent to the property being illuminated. With respect to lighting, the degree of illumination may vary widely depending on the amount of light generated, height of the light source, presence of barriers or obstructions, type of light source, and weather conditions.

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light by highly polished surfaces such as window glass or reflective materials and, to a lesser degree, from broad expanses of light-colored surfaces. Perceived glare is the unwanted and potentially objectionable sensation as observed by a person as they look directly into the light source of a luminaire. Daytime glare generation is common in urban areas and is typically associated with buildings with exterior facades largely or entirely comprised of highly reflective glass. Glare can also be produced during evening and nighttime hours by the reflection of artificial light sources such as automobile headlights. Glare generation is typically related to either moving vehicles or sun angles, although glare resulting from reflected sunlight can occur regularly at certain times of the year. Glare-sensitive uses include residences, hotels, transportation corridors, and aircraft landing corridors.

Minimal lighting is currently generated within the Project boundaries as a result of lighting associated with the onsite residential uses. The majority of lighting from surrounding land uses include security lighting and parking lot lighting associated with the Tracy Marketplace Shopping Center and the West Valley Mall, situated further northeast.

4.3.2 REGULATORY SETTING

LOCAL FRAMEWORK

City of Tracy General Plan

The Community Character Element of the City of Tracy General Plan (City General Plan) expands on the Land Use Element by providing policy direction on the type, location and character of new and existing developments. The I-205 Regional Commercial Area is recognized as one of the building blocks of the

[1] State of California Department of Transportation, *California Scenic Highway Mapping System*, http://www.dot.ca.gov/hq/LandArch/scenic_ highways/, accessed on January 12, 2011.

City, which serves as the City's primary retail environment outside of the Downtown. The Element notes that achieving the "home town feel" as the overarching design objective in the I-205 Regional Commercial Area is difficult due to the function of the center as a regional destination, the predominance of large scale buildings, and geographic separation from the largely residential areas to the south. The Element also states that future expansion within the area should integrate physically to existing uses and should continue to emphasize high quality architecture, landscaping and site planning. The Project site would become part of the I-205 Regional Commercial Area, which is generally north of the I-205/Grantline Road interchange and serves as a retail and automobile shopping area for south San Joaquin County, Alameda County and East Contra Costa County.

The City-wide goals, objectives, policies and actions provide a framework for growth and redevelopment for the City and are designed to maintain and develop the City's character and identity. The City General Plan includes the concept that growth should occur in an orderly and efficient manner. The following goals, objectives, policies and actions are applicable to the proposed Project:

Goal CC-1	Superior design quality throughout Tracy.
Objective CC-1.1	Preserve and enhance Tracy's unique character and "hometown feel" through high-quality urban design.
Policy P1	Preserving and enhancing hometown feel shall be the overriding design principle for the City of Tracy.
Policy 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.
Policy 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.
Policy P5	Lighting on private and public property should be designed to provide safe and adequate lighting, while minimizing light spillage to adjacent properties.
Objective CC-1.2	Balance the need for growth with the preservation of Tracy's "hometown feel."
Policy 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.
Objective CC-1.3	Enhance the unique quality of the City through the use of art and entryway treatments.
Policy P1	Entryways should be designed for the access points into the City. Entryways shall incorporate landscaping, trees, and/or architectural elements, to enhance a sense of arrival to the City.
Policy P2	Public art and other design features such as fountains and monuments should be used to enliven the public realm.

Action A1	Implement the entry monument recommendations of the City's Civic Art Plan.
Objective CC-1.4	Minimize the use of soundwalls in Tracy.
Policy P2	New commercial development shall be designed to front or have a presence along all streets.
Policy P3	Soundwalls or solid fences along streets other than arterials and expressways should be used only if no other design solutions exist for reducing the impact of roadway noise on residential areas.
Policy P4	Where soundwalls are used, they shall be set back from the street, include design features that enhance visual interest and be landscaped in order to mitigate their impact on urban character and the pedestrian environment.
Objective CC-1.5	Provide underground utilities throughout Tracy.
Policy P1	New development shall locate and construct utilities underground.
Goal CC-7	High quality architecture, site planning and landscaping in the I-205 Regional Commercial Area.
Objective CC-7.1	Ensure that future development in the I-205 Regional Commercial Area enhances its attractiveness and provides multi-modal access.
Policy P1	Future expansion of the I-205 Regional Commercial Area shall integrate physically to the existing development by direct vehicular, pedestrian and bicycle access.
Policy P4	Building architecture in the I-205 Regional Commercial Area shall be of the highest quality.
Policy P6	Bicycle racks shall be provided in the parking areas or near building entrances to facilitate bicycle riding as a transportation mode.
Policy P7	Public art should be located in the I-205 Regional Commercial Area.
Policy P8	Building architecture in the I-205 Regional Commercial Area shall continue to promote pedestrian protection from the elements by including elements such as connected, covered walkways and building entrances.
Policy P9	Street trees shall be planted in the I-205 Regional Commercial Area that, at maturity, will provide a tree canopy over sidewalks and minor streets.
Policy P10	Parking lots in the I-205 Regional Commercial Area shall include features such as landscaping and shade trees to create an attractive environment and reduce the impact of heat islands.

I-205 Corridor Specific Plan

The City approved and adopted the I-205 Corridor Specific Plan in 1990 and amended it thereafter. The I-205 Corridor Specific Plan is a comprehensive planning tool designed to help guide and facilitate commercial and industrial development along I-205. It provides for a variety of commercial and industrial uses. The Specific Plan also provides for the development of residential uses and school and park facilities, as well as addresses circulation and infrastructure necessary to support the uses identified by the Specific Plan. Development occurring in the I-205 Corridor Specific Plan area must comply with the design, land use and performance criteria for site development established by the I-205 Corridor Specific Plan.

According to the General Commercial and Industrial Standards identified in the I-205 Corridor Specific Plan, the site coverage and height of buildings within all Commercial and Industrial land use designations is governed by the land use of the building. Table 4.3-1 (General Commercial and Industrial Standards for Building Coverage and Height) shows the maximum allowable building coverage, floor area ratio (FAR) and building height for various types of buildings/land uses within the I-205 Corridor Specific Plan Commercial and Industrial land use designations.

Table 4.3-1
General Commercial and Industrial Standards for Building Coverage and Height

Land Use	Maximum Building Coverage	Maximum FAR	Maximum Building Height
Retail – Commercial Center	30%	0.30	55 feet
Retail – All other designations	25%	0.25	40 feet
Office – One-Story	35%	0.35	25 feet
Office – Two-Story	35%	0.40	40 feet
Office – Three-Story	35%	0.45	55 feet
Hotel/Motel	25%	0.40	55 feet
Restaurant – Free Standing	12.5%	0.125	40 feet
Van Court/Flextech	35%	0.35	One-Story (40 feet)
Light Manufacturing/ Assembly	45%	.045	One-Story (40 feet)
Warehouse/Distribution	50%	0.50	One-Story (40 feet)

Building Setbacks

The minimum building and parking setbacks required for all building types include the following:

a. Building setback from any property line shall be 25 feet, unless otherwise specified in the Specific Plan.
b. Parking setback along internal property lines and adjacent to buildings shall be 5 feet.
c. Parking shall generally not be permitted within 15 feet of any property line along a public street or the California Department of Transportation's right-of-way frontage.
d. Parking shall not be permitted within 15 feet of any office building. On warehouse/distribution buildings parking shall not be permitted within 15 feet of the office face or portion of the building.

Building Architecture

The I-205 Corridor Specific Plan encourages new commercial buildings to have a contemporary architectural style that utilizes elements that complement the existing character of the City. This includes a relatively small scale of adjacent structures and the incorporation of elements such as variation in textures and materials in the building façade design. The Specific Plan further discusses that large buildings should have facades that include variations in massing, form and texture. Building height requirements may be exceeded by significant architectural features that do not exceed 15 percent of the building footprint area in plan. The purpose of these features is to strengthen the identity of development, to avoid a succession of "boxy" structures, and to add diversity to the streetscape.

Landscaping

Landscaping and hard pedestrian surfacing is required in the 15-foot minimum setback zone between office buildings (or the office portions of a commercial building) and parking along street frontages. A minimum of forty percent of the zone is required to be landscaped. The Specific Plan also requires that onsite landscaping between the property line and the building, parking lot, or vehicular maneuvering or circulation improvements be installed by the property owner. These improvements are required to be designed as an extension of the adjacent public arterial landscaping. A mixture of trees, shrubs and groundcover would be required for any landscape area. At least one tree must be provided for every 2,000 square feet of landscaped area between buildings and street property lines. Both perimeter and interior landscaping would include canopy-type trees. Landscape amenities (e.g., walls, pots, etc.) are encouraged to be incorporated in the design. Further, the use of water conserving plantings, such as California natives and drought tolerant trees, shrubs and turf is encouraged. The Specific Plan identifies off-street parking landscaping requirements (requiring 40 percent shading of parking areas at full tree maturity and one tree for every five parking spaces).

Freeway Signage

According to the General Commercial and Industrial Standards identified in the I-205 Corridor Specific Plan Design Standards and Guidelines, each commercial center may have one freeway identification sign. The sign may identify tenant(s) located within 700 feet of the freeway on any parcel within the center. The maximum allowable height is 15 feet above crown of the nearest freeway, not to exceed 45 feet above finished site grade. The maximum allowable surface area is 300 square feet per sign face with a maximum of two sign faces.

City of Tracy Municipal Code

The City Municipal Code carries out the policies of the City General Plan by classifying and regulating the uses of land and structures within the City, consistent with the City General Plan. The purpose of the Municipal Code is to protect and promote the public health, safety, comfort, convenience, prosperity and general welfare of residents and businesses in the City.

The Project proposes Prezoning the site PUD consistent with Article 13 of Chapter 10.08 of the Tracy Municipal Code. According to the Tracy Municipal Code, the PUD Zone is "designed to allow flexibility and creativity in site planning for residential, commercial, or industrial uses to achieve greater efficiency in land use by maximizing open space, preserving natural amenities and creating additional amenities." The PUD Zone essentially allows for any and all uses, provided they conform to the City General Plan and the I-205 Corridor Specific Plan, and are indicated upon an approved development plan.

Per Article 30, Development Review, of Chapter 10.08 of the Tracy Municipal Code, the City has adopted a formal development review process which combines the required environmental review with the site and architectural plan review. The purpose of the site plan and architectural review is to recognize the interdependence of land values and aesthetics and to provide a method by which the following goals can be achieved:

- The promotion of logical land use development
- Assistance in the development of architectural standards and guidelines for buildings, structures, and improvements in the City.

4.3.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant aesthetic impact if it would:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway
- Substantially degrade the existing visual character or quality of the site and its surroundings
- Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area

AREAS OF NO PROJECT IMPACT

The following impacts are either not applicable to the proposed Project or not reasonably foreseeable:

- Have a substantial adverse effect on a scenic vista

Per the City General Plan, drivers heading west on I-205 are provided with views of the surrounding lands and coastal range beyond the City to the southwest. The Project site is situated to the north of I-205. However, due to the existing commercial development that adjoins the Project site to the east, motorists traveling along westbound I-205 have minimal views to the Project site. Development of the Project site would not screen views to scenic resources in the City (e.g., views to the Diablo Range, expansive agricultural lands, hillside areas or windfarms) and no impact would result.

- Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway

There are no designated or eligible state scenic highways located within the viewshed of the Project site. The designated State Scenic Highway I-580 (between I-205 and I-5), located approximately 3.75 miles southwest of the Project site, does not include views toward the Project site as a result of existing structures, vegetation, distance and topography. Thus, as the Project would not be visible from a designated state scenic highway, no impact would result.

POTENTIAL IMPACTS AND MITIGATION MEASURES

4.3-1 IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN THE DEGRADATION OF THE VISUAL CHARACTER/QUALITY OF THE SITE AND ITS SURROUNDINGS.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

Short-Term (Construction) Impacts

Construction-related activities involve three general phases: demolition and removal of existing structures, site grading, and construction of new structures and roadways. There are three residential units situated approximately 100 to 200 feet to the north of the Project site (across from West Grant Line Road) and one residence located approximately 400 feet northwest of the Project site, across from the intersection of Grant Line Road and Byron Road. No other sensitive receptors are located within the Project vicinity.

Construction-related activities would temporarily influence the character of the Project site, as viewed from surrounding residents as well as motorists traveling along West Grant Line Road and Byron Road. During Project construction, the various construction activities would intermittently alter the character of the Project site and its surroundings. Graded surfaces, construction debris, construction equipment and truck traffic would be visible. Additionally, soil would be stockpiled and equipment for grading activities would be staged at various locations throughout the Project site. The duration and intensity of Project construction would vary with each stage. Most of the heavy grading equipment would be onsite for the period needed to complete the demolition and rough grading. The construction phase would involve less heavy equipment. Upon completion of construction, these short-term visual impacts would cease.

Four residents would have direct views to the Project's construction activities, which may result in the degradation of character for this area and affect the view of this site from those residences and passing motorists. This routine impact from typical, temporary construction activities would be short-term in duration and, therefore, result in a less than significant impact.

Long-Term (Operational) Impacts

The visual analysis of a project must consider its visual quality and compatibility in consideration of the area's visual sensitivity. The analysis provided below examines the proposed Project for compatibility with the character of the surrounding commercial and rural land uses, in consideration of the following visual elements:

- Front, side, and rear yard setbacks
- Scale (e.g., size relationships between adjacent buildings, and between buildings and adjacent open spaces)
- Architectural features (e.g., repetition of design elements: materials, texture, colors, and form)
- Landscaping (e.g., landscaping between buildings and parking lot landscaping)

The Project involves the development of a commercial/retail and office use along the urban fringe of the City. Typical development adjoining the Project site to the east consists of a similar commercial/retail development (Tracy Marketplace Shopping Center), whereas development to the north and west of the

Project site consists of a more rural residential, grazing and agricultural character. The proposed Project would appear to be an extension of the existing commercial development associated with the I-205 Corridor Specific Plan.

As proposed by the Project, the future onsite development would be subject to the standards and regulations required by the General Commercial land use designation of the I-205 Corridor Specific Plan. The proposed structures would range in height from 25 to 55 feet. Buildings would be set back 25 feet from any adjoining properties and roadway right-of-way. Further, the proposed architectural style of new buildings would have a small scale, consistent with the goals and policies of the General Plan, and would include variation in textures and materials in order to break up the visible building massing and create greater visual variety.

Onsite landscaping would be required to be installed between the property line and the buildings, parking areas, and vehicular maneuvering or circulation improvement areas. Landscaping treatments would be required to be a mixture of trees, shrubs, and groundcover. At least one tree must be provided for every 2,000 square feet of landscaped area between buildings and street property lines. Both perimeter and interior landscaping would include canopy-type trees. Landscape amenities (e.g., walls, pots, etc.) and water conserving plantings would also be encouraged to be incorporated in the design. Parking lot areas would be required to include 40 percent shading at full tree maturity and one tree for every five parking spaces.

Through the City's Planned Unit Development Preliminary and Final Development Plan requirements, future development would undergo site and architectural plan review. The purpose of the site plan and architectural review is to recognize the interdependence of land values and aesthetics. Such discretionary review would ensure that the design of the proposed buildings would maintain and enhance the character/quality of the Project area and maintain the "small town" character of the City. With implementation of the standards and regulations required by the I-205 Corridor Specific Plan and the City's review process, future development at the Project site would be consistent with the existing commercial land uses in the area. Thus, impacts in this regard would be less than significant.

Freeway Signage

According to the I-205 Corridor Specific Plan Design Standards and Guidelines, each commercial center may have one freeway identification sign. The sign may identify tenant(s) located within 700 feet of the freeway on any parcel within the center. The maximum allowable height is 15 feet above crown of the nearest freeway, not to exceed 45 feet above finished site grade. The maximum allowable surface area is 300 square feet per sign face with a maximum of two sign faces (for a total of 600 square feet).

The Project proposes an amendment to the freeway sign height and size standards specified in the I-205 Corridor Specific Plan to allow an 85-foot tall freeway sign with two 1,200-square-foot sign faces (for a total of 2,400 square feet). Thus, the proposed amendment would allow a freeway sign that would be an additional 40 feet in height and four times the sign area than would otherwise be allowed. In addition, based on the elevation of the Project site near the edge of the site of approximately 27 feet and the freeway crown elevation of approximately 61 feet, the proposed freeway sign would be 51 feet above the freeway crown, where 15 feet would otherwise be allowed.

The proposed amendment could result in the degradation of visual character/quality, particularly for freeway motorists traveling along I-205. The additional 40-foot sign height, and 1,200 total square-foot sign face would create visible signage in the Project area that would not be consistent with other freeway signage to the east of the Project site or elsewhere within the City. Compliance with the standards and

regulations required by the I-205 Corridor Specific Plan and the City's process for review of development applications would ensure that impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

4.3-2 IMPLEMENTATION OF THE PROPOSED PROJECT MAY GENERATE ADDITIONAL LIGHT AND GLARE BEYOND EXISTING CONDITIONS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Short-Term (Construction) Impacts

Short-term light and glare impacts associated with construction activities would likely be limited to nighttime lighting (for safety and security purposes) in the evening hours. In accordance with Section 4.12.820 (Specific Noises Prohibited) of the City's Municipal Code, construction or repair work (i.e., pile drivers, hammers, etc.) 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, is prohibited between the hours of 10:00 PM and 7:00 AM. Thus, it is anticipated that site disturbance/construction activities would cease by 10:00 PM and resume at 7:00 AM. With implementation of Mitigation Measure 4.3-2a, all construction-related nighttime security lighting would be located and aimed away from adjacent residential areas and public rights-of-way. Implementation of Mitigation Measure 4.3-2a would reduce short-term (construction) light and glare impacts to a less than significant level.

Long-Term (Operational) Impacts

Light sources associated with the Project would include new street lights, security lights, interior lights, and parking lot lights, which may create light spillover and glare impacts on surrounding land uses in the absence of mitigation. Mitigation Measure 4.3-2b would ensure that all street lighting would utilize directional lighting techniques (without compromising site safety or security) that direct light downwards and minimize light spillover onto adjacent light sensitive receptors. Implementation of Mitigation Measure 4.3-2b would reduce long-term (operational) light and glare impacts to a less than significant level.

Mitigation Measures:

4.3-2a All construction-related lighting shall be located and aimed away from adjacent residential areas and consist of the minimal wattage necessary to provide safety at the construction site.

4.3-2b The Project applicant shall ensure that any exterior lighting does not spill over onto the adjacent uses in accordance with Tracy Municipal Code Section 10.08. Adequate lighting in accordance with City of Tracy Standard Plan 154 shall be provided to ensure the safety and security of pedestrians and vehicular movements.

Level of Significance After Mitigation: Less Than Significant Impact.

4.3.4 ANALYSIS OF CUMULATIVE IMPACTS

4.3.3 THE PROPOSED PROJECT COULD RESULT IN A CUMULATIVELY CONSIDERABLE AESTHETIC IMPACT.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Future development at the Project site and under the City's General Plan could potentially result in the alteration of the existing rural and natural landscape in the region, if not mitigated. Individual projects proposed within the Project area must be designed consistent with policies established in the City's General Plan, I-205 Corridor Specific Plan and Municipal Code. In addition, project specific mitigation would reduce visual impacts on a project-by-project basis.

As described above, implementation of the proposed Project would not result in impacts to existing views/scenic vistas and scenic highways; therefore, the Project would not contribute to cumulative impacts with regard to views/vistas and scenic highways.

The Project would result in a less than significant impact with regard to light and glare with implementation of recommended Mitigation Measures 4.3-2a and 4.3-2b. Although the City General Plan EIR identifies light and glare impacts associated with General Plan buildout to be potentially significant, the General Plan EIR identifies a mitigation measure to reduce these impacts to less than significant. Therefore, with implementation of the Project-specific Mitigation Measures 4.3-2a and 4.3-2b, the Project would not cumulatively contribute to light and glare impacts.

As stated above, the Project would result in a less than significant long-term impact to the character/quality of the Project area. The City General Plan EIR identified significant and unavoidable character/quality impacts with buildout of the General Plan, due to the amount of development permitted within the City limits and Sphere of Influence. Therefore, as development occurs within the Project site and within the City limits and Sphere of Influence, residents and visitors in the area would notice the visual effects of urbanization. The significance of these visual and aesthetic changes is difficult to determine, as aesthetic value is subjective, potential impacts are site-specific, and cumulative project details are unknown at this time.

Mitigation Measures: Implement Mitigation Measures 4.3-2a and 4.3-2b.

Level of Significance After Mitigation: Less Than Significant Impact.

4.4 AGRICULTURAL RESOURCES

This section discusses potential Project impacts on agricultural resources, including the loss of prime farmland and potential conflicts between the proposed uses and ongoing agricultural activities in the Project area. Information for this section was obtained from:

- California Department of Conservation, Division of Land Resource Protection, *California Farmland Conversion Report 2004-2006*, December 2008.
- California Department of Conservation, Division of Land Resource Protection, *Williamson Act Farmland Security Zones Fact Sheet*, 2008.
- California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, *Rural Mapping Edition, San Joaquin County Important Farmland 2006*, January 2009.
- California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, *San Joaquin County 1990 – 2006 Land Use Summary*, January 2009.
- California Department of Food and Agriculture, *California Agricultural Highlights 2008- 2009*, 2008-2009.
- California Department of Food and Agriculture, *California Agricultural Resource Directory 2008- 2009*, 2008-2009.
- City of Tracy, *City of Tracy General Plan*, July 20, 2006.
- San Joaquin County, *San Joaquin County General Plan 2010*, July 29, 1992.
- San Joaquin County, San Joaquin County District Viewer, http://www.sjgov.org/commdev/cgi-bin/cdyn.exe, accessed September 14, 2010.
- San Joaquin County Council of Governments, *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)*, November 14, 2000.
- U.S. Department of Agriculture, National Agricultural Statistics Service, California Field Office, *California Agricultural Statistics 2008 Crop Year*, March 2010.
- U.S. Department of Agriculture, National Agricultural Statistics Service, California Field Office, *Summary of California County Agricultural Commissioners' Reports, 2007-2008*, October 15, 2009.

4.4.1 ENVIRONMENTAL SETTING

STATE OF CALIFORNIA

Agriculture is a major industry in California. According to the U.S. Department of Agriculture, National Agricultural Statistics Service (USDA, NASS), California Field Office (California Agricultural Statistics 2008 Crop Year, March 2010), there were 81,500 farms and ranches in the state during 2008 (less than four percent of the nation's total) that received $36.2 billion for their output that year. California remained the number one state in cash farm receipts in 2008, with its $36.2 billion in revenue representing 11.2 percent of the U.S. total. Land devoted to farming and ranching accounted for 25.4 million acres in the state during 2008 with an average farm size of 312 acres.

California produces over 400 different agricultural commodities. Among these, the state produces about half of the U.S. grown fruits, nuts and vegetables. California is the nation's sole producer (99 percent or more) of a large number of specialty crops, such as almonds, artichokes, dates, figs, grapes, kiwifruit,

olives, clingstone peaches, pistachios, dried plums, pomegranates, raisins, sweet rice, seed (ladino clover) and walnuts.

SAN JOAQUIN COUNTY

San Joaquin County (County) is among the top ten agricultural counties in the state. According to the Summary of California County Agricultural Commissioners' Reports, 2007-2008, San Joaquin County ranked number seven in the state in both 2007 and 2008 with a reported gross production value of $2 billion in 2007 and $2.1 billion in 2008. The 2009 San Joaquin County Annual Crop Report estimated that the total gross value of agricultural production for the County was approximately $2 billion in 2009 (a 6.49 percent decrease from 2008's all time production high). This figure includes field crops, seed crops, fruit and nut crops, vegetable crops, nursery products, apiary products, livestock and poultry products. According to the 2009 San Joaquin County Annual Crop Report, San Joaquin County's top ten leading crops for 2009 were grapes, milk, cherries, tomatoes, walnuts, almonds, hay, cattle and calves, apples and asparagus. In addition, according to the report, in 2007, the County had 737,503 acres of land in farms, 492,032 total acres of cropland, 453,980 acres of irrigated cropland, 3,624 farms, an average farm size of 204 acres and a monthly average agricultural workforce of 23,037.

CITY OF TRACY

Although the City of Tracy (City) has grown and become increasingly developed with urban uses during the past twenty years, agriculture continues to remain an important activity in the City vicinity. Agricultural uses within the Tracy area include field crops, tree crops, nurseries, greenhouses, agricultural related residences and structures, livestock ranges, animal husbandry, public parks and recreation areas, farm employee residences, agricultural offices, truck farming and roadside produce stands.

PROJECT SITE

The majority of the Project site consists of predominantly flat land that is actively in agricultural production for hay. There are three single-family residences and their associated outbuildings, as well as a welding shop located along the Grant Line Road frontage. Various ornamental landscaping surrounds the residences and welding shop. A Pacific Gas and Electric (PG&E) easement containing two power transmission lines and an underground natural gas pipeline are located in the southeastern portion of the Project site. In addition, the Hansen Sewer pipeline easement is located along the PG&E easement in the southeast portion of the Project site and a City water line easement exists along the east boundary of the site, adjacent to the Tracy Marketplace Shopping Center.

4.4.2 REGULATORY SETTING

FEDERAL FRAMEWORK

Farm and Ranch Land Protection Program

The Natural Resource Conservation Service (NRCS) of the USDA administers the Farm and Ranch Land Protection Program (FRPP). The FRPP provides matching funds to help purchase development rights to keep productive farm and ranchland in agricultural uses. Working through existing programs, the NRCS partners with state, tribal or local governments and non-governmental organizations to acquire conservation easements or other interests in land from landowners. The NRCS provides up to 50 percent of the fair market easement value of the conservation easement.

To qualify, farmland must: be part of a pending offer from a state, tribe or local farmland protection program; be privately owned; have a conservation plan for highly erodible land; be large enough to sustain agricultural production; be accessible to markets for what the land produces; have adequate infrastructure and agricultural support services; and have surrounding parcels of land that can support long-term agricultural production. None of the parcels that make up the Project site have a conservation easement administered through the FRPP.

STATE FRAMEWORK

California Land Conservation Act

The State of California adopted the California Land Conservation Act (LCA), also known as the Williamson Act, in 1965 with the basic intent of encouraging the preservation of the state's agricultural lands in view of the increasing trend toward their urbanization. The LCA established a land contract procedure whereby a county could stabilize (i.e., not increase) taxes on certain qualifying lands in return for an owner's guarantee to keep the lands in agricultural preserve status for a ten-year period. A Williamson Act contract is automatically renewed each year for an additional year, unless a notice of non-renewal is initiated by the land owner or the county. Once a notice of non-renewal is given, the contract remains in place on the land for the remaining nine-year term. Once the nine-year term expires, the land is no longer restricted to agricultural or open space uses. None of the parcels that make up the Project site are currently under a Williamson Act contract.

Farmland Security Zones

In 1998, the State legislature amended the Williamson Act to allow the creation of Farmland Security Zones. A Farmland Security Zone is an area created within an agricultural preserve by a county board of supervisors upon request by a landowner or group of landowners. An agricultural preserve defines the boundary of an area within which a city or county will enter into contracts with landowners. The boundary is designated by resolution of the county board of supervisors or city council having jurisdiction. Agricultural preserves must generally be at least 100 acres in size. A Farmland Security Zone contract is similar to a Williamson Act contract in that it is a voluntary contract between a private landowner and a county that enforceably restricts land to agricultural or open space use and the contract automatically renews annually unless either party files a notice of nonrenewal. However, the minimum initial term is 20 years and the subject land must be designated as important farmland by the state (refer to discussion below under Farmland Mapping and Monitoring Program for definitions of important farmland). In addition, a Farmland Security Zone contract offers a landowner a greater property tax reduction than a Williamson Act contract. None of the Project site parcels are currently within a Farmland Security Zone.

Public Resources Code Section 21060.1

Public Resources Code Section 21060.1 defines agricultural land for the purposes of assessing environmental impacts using the Farmland Mapping and Monitoring Program (FMMP).

Farmland Mapping and Monitoring Program

The FMMP was established in 1982 to assess the location, quality and quantity of agricultural lands and the conversion of these lands over time. The FMMP is a non-regulatory program that analyzes agricultural land use and land use changes throughout California. The FMMP maps important farmlands throughout California and produces Important Farmland Maps. The FMMP also produces a biannual

report (California Farmland Conversion Report) on the amount of land converted from agricultural to non-agricultural use.

Important Farmland Categories

The FMMP divides important farmlands into the following five categories based on their suitability for agriculture: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. Any conversion of land within the Prime Farmland, Farmland of Statewide Importance, or Unique Farmland categories to non-agricultural use is typically considered an adverse impact.

Prime Farmland/Farmland of Statewide Importance

Prime Farmland is land 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. Farmland of Statewide Importance is similar to 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 to be considered Prime Farmland or Farmland of Statewide Importance.

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 to be considered Unique Farmland.

Farmland of Local Importance

Farmland of Local Importance consists of land that is important to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. In some counties, including San Joaquin, Confined Animal Agriculture facilities are part of Farmland of Local Importance, but they are shown separately. San Joaquin County identifies Farmland of Local Importance as all farmable land within San Joaquin County not meeting the definitions of "Prime Farmland," "Farmland of Statewide Importance," and "Unique Farmland." This includes land that is or has been used for irrigated pasture, dryland farming, confined livestock or dairy facilities, aquaculture, poultry facilities and dry grazing. It also includes soils previously designated by soil characteristics as "Prime Farmland," "Farmland of Statewide Importance" and "Unique Farmland" that has since become idle.

Grazing Land

Grazing Land is land with existing vegetation that is suited for the grazing of livestock.

Important Farmland on the Project Site

According to the 2006 Rural Land Mapping Edition, San Joaquin County Important Farmland Map prepared by the FMMP, the entire Project site is classified Prime Farmland.

LOCAL FRAMEWORK

San Joaquin County

The Project site is located within unincorporated San Joaquin County and is currently under the jurisdiction of the County and within the City's Sphere of Influence (SOI) and Planning Area.

The San Joaquin County General Plan (County General Plan) designates the Project site General Agriculture (A/G) and the County Zoning designation is General Agriculture (AG-40). The A/G land use designation applies to areas suitable for agriculture outside areas planned for urban development where the soils are capable of producing a wide variety of crops and/or supporting grazing; parcel sizes are generally large enough to support commercial agricultural activities; and there exists a commitment to commercial agriculture in the form of Williamson Act contracts and/or capital investments. Typical uses include crop production, feed and grain storage and sales, crop spraying and animal raising and sales. A maximum of one primary residence is allowed per 20 acres. The purpose of the AG Zone is to preserve agricultural lands for the continuation of commercial agriculture enterprises. Minimum parcel sizes within the AG Zone are 20, 40, 80 or 160 acres, as specified by the precise zoning.

Policies and actions in the County General Plan direct development away from agricultural lands, towards existing urban centers and infill areas. Agricultural zoning is used in these areas to limit development intensities and densities, or "feather" intensities and densities of development from urban to agricultural uses.

City of Tracy

City of Tracy General Plan

The City of Tracy General Plan (City General Plan) anticipates that the Project site will ultimately be annexed into the City and developed with a mix of commercial and office uses. The City General Plan land use designation for the Project site is Urban Reserve 2 (UR 2). This designation is applied to relatively large, contiguous, undeveloped areas at the City's periphery in order to ensure the comprehensive planning of new development within the City's SOI prior to urbanization. Each UR has a specific statistical profile that provides guidelines for the approximate mix of land uses. However, the City General Plan anticipates that the overall distribution and mixture of uses may change. The statistical profile for UR 2 envisions 367,000 square feet of commercial use and 78,000 square feet of office use for a total of 445,000 square feet.

The City General Plan includes a goal, an objective and several policies that strive to create appropriate transitions between urban development and non-urban (agricultural) areas, including creating buffer zones, such as natural open space or large setbacks and landscaped areas to separate urban from rural uses; clustering developments; and feathering density by concentrating the highest density closest to urban uses and the lowest density near rural areas.

City of Tracy Municipal Code

The City's Municipal Code contains an ordinance designed to preserve and protect existing agricultural operations and another ordinance to mitigate the loss or conversion of agricultural lands within and adjacent to the City. Chapter 10.24 of the Tracy Municipal Code, Right to Farm, establishes the City's intention to preserve and protect existing agricultural operations from nuisance complaints associated with encroaching residential development. Chapter 13.28 of the Tracy Municipal Code, Agricultural

Mitigation Fee, requires the payment of an agricultural mitigation fee to the City prior to the issuance of building permits for each acre of farmland to be developed for private urban uses (including but not limited to residential, commercial or industrial). The fees are used for the preservation of farmland or open space within or adjacent to the City Planning Area.

4.4.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant impact on agricultural resources if it would:

- 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

POTENTIAL IMPACTS AND MITIGATION MEASURES

Conversion of Prime Farmland to Non-Agricultural Use

4.4-1 THE PROPOSED PROJECT WOULD CONVERT PRIME FARMLAND TO NON-AGRICULTURAL USE.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

The proposed Project would involve a variety of actions that would facilitate the development of a maximum of 466,000 square feet of commercial and office uses on the Project site. Development of these uses would permanently convert 43-acres of Prime Farmland to non-agricultural use, which in turn would permanently eliminate a source for growing food or fiber. Because prime agricultural soils cannot be recreated, there is no mitigation that could completely reduce or minimize this impact. Developers of the Project site would be required to pay fees to preserve farmland elsewhere in the County. These fees would help preserve County-wide agricultural resources and the local agricultural economy, as well as minimize the cumulative loss of Important Farmland. In addition, as described in Section 4.2 (Land Use and Planning), future developers would be required to compensate for the loss of Habitat Land and its conversion to urban use by either payment of the appropriate fee or dedication of habitat lands. Regardless, the proposed Project would result in the loss of 43-acres of Prime Farmland, which would be a significant and unavoidable impact.

Mitigation Measure:

4.4-1 Prior to the issuance of building permits, the Project applicant shall pay the appropriate Agricultural Mitigation Fee to the City of Tracy, in accordance with Chapter 13.28 of the Tracy Municipal Code.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

Conflicts with Agricultural Zoning and Adjacent Agricultural Lands

4.4-2 ***THE PROPOSED PROJECT COULD CONFLICT WITH AGRICULTURAL ZONING OR OTHERWISE RESULT IN LAND USE CONFLICTS WITH ADJACENT AGRICULTURAL LANDS, WHICH MAY LEAD TO THE INDIRECT CONVERSION OF AGRICULTURAL LANDS TO NON-AGRICULTURAL USES.***

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

The Project would not conflict with a Williamson Act contract, since none of the Project site parcels are under a Williamson Act contract. While the entire Project site is currently zoned General Agriculture (AG-40) by the County, the Project requests annexation of the Project site to the City and Prezoning the Project site Planned Unit Development (PUD), consistent with the City General Plan assumptions for the site. After this occurs, the County AG-40 land use designation would no longer apply and future construction of commercial and office uses on the Project site would not conflict with agricultural zoning. However, agricultural lands that are also zoned AG-40 by the County surround the Project site to the north, south and west. Future development of commercial and office uses on the Project site could result in conflicts with these uses and lead to the indirect conversion of farmland to non-agricultural use.

Shoppers and workers at the Project site may be subjected to intermittent nuisances, such as odors, noise from farm equipment, vehicle conflicts and dust. Pedestrian and vehicle trespassers could cause soil compaction and damage crop potential or result in other nuisances to surrounding agricultural operations. However, Grant Line Road, the Union Pacific Railroad (UPRR) line and Byron Road would provide a buffer between the commercial and office uses proposed by the Project and the surrounding agricultural uses that would help prevent trespassing and minimize other nuisances. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

4.4.4 ANALYSIS OF CUMULATIVE IMPACTS

4.4-3 ***THE PROPOSED PROJECT WOULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO AGRICULTURAL RESOURCES.***

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

The analysis of cumulative agricultural resource impacts considers the larger context of future development within the County and the State of California. Cumulative agricultural resource impacts would result from incremental changes that reduce agricultural land in San Joaquin County and the State of California. According to the FMMP, approximately 803,146 acres of Important Farmland in California were converted to non-agricultural use between 1984 and 2006, which equates to approximately 36,507 acres a year. Between 1990 and 2006, approximately 18,074 acres of Important Farmland in San Joaquin

County were converted to non-agricultural use, which equates to an average yearly loss of approximately 1,130 acres of Important Farmland.

The City General Plan EIR analyzed the long-term development of the City and found that implementation of the City General Plan would result in the permanent conversion of farmland to non-agricultural use. The City General Plan includes several policies and actions under Objective OSC-2.1 stating that the City will work at a regional level to control the conversion of agricultural uses. The City also adopted an Agricultural Mitigation Fee Ordinance to help mitigate for the loss of farmland, which requires the payment of in-lieu fees for the conversion of agricultural land to urban uses to fund the purchase of conservation easements on agricultural lands. In addition, SJCOG works at a regional level to address the permanent preservation of agricultural lands in San Joaquin County and requires in kind compensation or payment of in-lieu fees for habitat lost. Other cities and regional governments around the State have similar policies and mechanisms to minimize the loss of agricultural land.

As discussed above, the Project proposes the development of a mix of commercial and office uses, which would permanently convert Prime Farmland to non-agricultural use. Other projects within the County and state undertaken in agricultural areas would also convert Important Farmland to non-agricultural use. While local and regional programs and regulations would help reduce the cumulative loss of agricultural land throughout the state, the proposed Project in combination with other development projects undertaken in agricultural areas would result in a net permanent loss of agricultural land to non-agricultural use, which would be significant and unavoidable. The proposed Project's contribution would be cumulatively considerable, as there is no way to recreate the agricultural land it would convert to non-agricultural use.

Mitigation Measures: No feasible mitigation is available beyond the payment of fees described in Mitigation Measure 4.4-1.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

4.5 AIR QUALITY

This section evaluates potential short- and long-term air quality impacts that would result from buildout of the Filios/Dobler Annexation and Development Project (Project). Information in this section is based primarily on the California Environmental Quality Act (CEQA); the *2007 Ozone Plan*, *2007 PM_{10} Plan* and the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI), prepared by the San Joaquin Valley Air Pollution Control District (SJVAPCD); Air Quality Data (California Air Resources Board 2007 through 2009); and Section 4.14 (Transportation/Traffic).

4.5.1 ENVIRONMENTAL SETTING

The Project site is located in the San Joaquin Valley Air Basin (Basin), characterized as having an "inland Mediterranean" climate (a semi-arid environment with cool winters, dry summers and moderate rainfall). The Basin is approximately 250 miles long and averages 35 miles wide. The Basin is the second largest in the state and is defined by the Sierra Nevada Mountains to the east (8,000 to 14,000 feet in elevation), the Coastal Range to the west (averaging 3,000 feet in elevation) and the Tehachapi Mountains to the south (6,000 to 8,000 feet in elevation). The Basin is considered a "bowl" since it has generally flat topography with a slight downward gradient to the northwest.

CLIMATE

The climate within the Basin is characterized by moderate temperatures and comfortable humidities with precipitation limited to a few storms during the winter season (November through April). The average annual temperature varies little throughout the Basin, and the summer high averages 90 degrees Fahrenheit. All portions of the Basin have had recorded temperatures of over 100 degrees in recent years. January is usually the coldest month at all locations while July and August are usually the hottest months of the year. Periods of heavy fog are frequent and low stratus clouds, occasionally referred to as "high fog," are a characteristic climatic feature. Precipitation is typically 9.25 inches annually in the San Joaquin Valley floor.

WIND

One of the most important climatic factors is the direction and intensity of the prevailing winds. During the summer months, the wind usually originates at the northern end of the San Joaquin Valley and flows in a south-southeasterly direction into the Mojave Desert Air Basin. In the winter, the wind originates from the southern end of the San Joaquin Valley and flows in a northeasterly direction. With very light average wind speeds (less than 10 miles per hour), the Basin has a limited capability to disperse air contaminants horizontally. Whether there is air movement or stagnation during the morning and evening hours (before these dominant patterns take effect) is one of the critical factors in determining the smog condition on any given day.

SUNLIGHT

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain original, or "primary" pollutants (mainly reactive hydrocarbons and oxides of nitrogen) react to form "secondary" pollutants (primarily oxidants). Since this process is time-dependent, secondary pollutants can be formed many miles downwind from the emission sources. Because of the prevailing daytime winds and time-delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of the San Joaquin Valley.

TEMPERATURE INVERSIONS

A temperature inversion is a reversal in the normal decrease of temperature as altitude increases. In most parts of the country, air near ground level is warmer than the air above it. Semi-permanent systems of high barometric pressure fronts establish themselves over the Basin, deflecting low-pressure systems that might otherwise bring cleansing rain and winds. The height of the base of the inversion is known as the "mixing height" and controls the volume of air available for the mixing and dispersion of air pollutants.

The interrelationship of air pollutants and climatic factors are most critical on days of greatly reduced atmospheric ventilation. On days such as these, air pollutants accumulate because of the simultaneous occurrence of three unfavorable factors: low inversions, low maximum mixing heights and low wind speeds. Although these conditions may occur throughout the year, the months of July, August and September generally account for more than 40 percent of these occurrences.

The potential for high contaminant levels varies seasonally for many contaminants. During late spring, summer and early fall, light winds, low mixing heights and sunshine combine to produce conditions favorable for the maximum production of oxidants, mainly ozone. When strong surface inversions are formed on winter nights, especially during the hours before sunrise, coupled with near-calm winds, carbon monoxide from automobile exhausts becomes highly concentrated. The highest yearly concentrations of carbon monoxide and oxides of nitrogen are measured during November, December and January.

LOCAL AMBIENT AIR QUALITY

The SJVAPCD and California Air Resources Board (CARB) monitor ambient air quality at approximately 250 air-monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The following air quality information briefly describes the various types of pollutants monitored at the Tracy-Airport Monitoring Station and the Stockton-Hazelton Monitoring Station, which are the closest to the Project site. Air quality data from 2007 through 2009 is provided in Table 4.5-1 (Local Air Quality Levels).

Carbon Monoxide. Carbon monoxide (CO) is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions.

CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency, as seen in high altitudes) are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pains when exposed to low levels of CO. Exposure to high levels of CO can slow reflexes and cause drowsiness, as well as result in death in confined spaces at very high concentrations.

Nitrogen Dioxide. Nitrogen oxides (NO_X) are a family of highly reactive gases that are a primary precursor to the formation of ground-level ozone (O_3), and react in the atmosphere to form acid rain. NO_2 (often used interchangeably with NO_X) is a reddish-brown gas that can cause breathing difficulties at high levels. Peak readings of NO_2 occur in areas that have a high concentration of combustion sources (i.e., motor vehicle engines, power plants, refineries and other industrial operations).

Table 4.5-1
Local Air Quality Levels

Pollutant	Primary Standard		Year	Maximum[1] Concentration	Number of Days State/Federal Std. Exceeded
	California	Federal			
Carbon Monoxide (CO)[2] (1-Hour)	20 ppm for 1 hour	35 ppm for 1 hour	2007 2008 2009	3.60 ppm 3.40 3.40	0/0 0/0 0/0
Carbon Monoxide (CO)[2] (8-Hour)	9 ppm for 8 hours	9 ppm for 8 hours	2007 2008 2009	2.31 ppm 1.86 2.29	0/0 0/0 0/0
Ozone (O_3) (1-Hour)[3]	0.09 ppm for 1 hour	NA[4]	2007 2008 2009	0.097 ppm 0.123 0.104	1/0 11/0 2/0
Ozone (O_3) (8-Hour)[3]	0.070 ppm for 8 hours	0.075 ppm for 8 hours	2007 2008 2009	0.084 ppm 0.104 0.087	11/6 26/16 20/8
Nitrogen Dioxide (NO_2)[3]	0.18 ppm for 1 hour	0.100 ppm for 1 hour	2007 2008 2009	0.045 ppm 0.048 0.043	0/NA 0/NA 0/NA
Particulate Matter (PM_{10})[3,5,6]	50 µg/m³ for 24 hours	150 µg/m³ for 24 hours	2007 2008 2009	75.0 µg/m³ 126.0 55.3	NA/0 NA/0 NA/0
Fine Particulate Matter ($PM_{2.5}$)[3,6]	No Separate State Standard	35 µg/m³ for 24 hours	2007 2008 2009	61.0 µg/m³ 85.3 41.6	NA/NA NA/NA NA/NA

PM_{10} = particulate matter 10 microns in diameter or less
$PM_{2.5}$ = particulate matter 2.5 microns in diameter or less
CO = carbon monoxide
O_3 = ozone
NO_X = nitrogen oxides
ppm = parts per million
µg/m³ = micrograms per cubic meter
NM = Not Measured
NA = Not Applicable

Notes:
1 – Maximum concentration is measured over the same period as the California Standard.
2 – Measurements taken at the Stockton-Hazelton Street Monitoring Station (located at 1593 East Hazelton Street, Stockton, California 95205).
3 – Measurements taken at the Tracy-Airport Monitoring Station (located at 5749 South Tracy Boulevard, Tracy, California 95376).
4 – The United States Environmental Protection Agency revoked the Federal 1-hour Standard in June of 2005.
5 – PM_{10} exceedances are based on State thresholds established prior to amendments adopted on June 20, 2002.
6 – PM_{10} and $PM_{2.5}$ exceedances are derived from the number of samples exceeded, not days.

Source: California Air Resources Board, *Aerometric Data Analysis and Measurement System (ADAM) Air Quality Data Statistics*, http://www.arb.ca.gov/adam/welcome.html, accessed on December 22, 2010.

NO_2 can irritate and damage the lungs, and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure are still unclear. However, continued or frequent exposure to NO_2 concentrations that are typically much higher than those normally found in the ambient air, may increase acute respiratory illnesses in children and increase the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO_2 may aggravate eyes and mucus membranes as well as cause pulmonary dysfunction.

Ozone. O_3 occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" O_3 layer) extends upward from about 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

The "Bad" O_3 is a photochemical pollutant, and needs reactive organic gases (ROGs), NO_X and sunlight to form; therefore, ROGs and NO_X are O_3 precursors. To reduce O_3 concentrations, it is necessary to control the emissions of these O_3 precursors. Significant O_3 formation generally requires an adequate amount of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High O_3 concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While O_3 in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level O_3 (in the troposphere) can adversely affect the human respiratory system and other tissues. O_3 is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with pre-existing lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of O_3. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in San Joaquin Valley can result in aggravated respiratory diseases such as emphysema, bronchitis and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, increased fatigue, as well as chest pain, dry throat, headache and nausea.

Coarse Particulate Matter (PM_{10}). Coarse particulate matter (PM_{10}) refers to suspended particulate matter, which is smaller than 10 microns or 10 one-millionths of a meter. PM_{10} arises from sources such as road dust, diesel soot, combustion products, construction operations and dust storms. PM_{10} scatters light and significantly reduces visibility. In addition, these particulates penetrate into lungs and can potentially damage the respiratory tract. On June 19, 2003, CARB adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both state and federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with pre-existing cardiopulmonary disease. In 1997, the U.S. Environmental Protection Agency (EPA) announced new $PM_{2.5}$ standards. Industry groups challenged the new standard in court and the implementation of the standard was blocked. However, upon appeal by the EPA, the U.S. Supreme Court reversed this decision and upheld the EPA's new standards.

On January 5, 2005, the EPA published a Final Rule in the Federal Register that designates the Basin as a nonattainment area for federal $PM_{2.5}$ standards. On June 20, 2002, CARB adopted amendments for statewide annual ambient particulate matter air quality standards. These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current state standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide SO_2. Sulfur dioxide (SO_2) is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. Sulfur dioxide is often used interchangeably with sulfur oxides (SO_X) and lead (Pb). Exposure of a few minutes to low levels of SO_2 can result in airway constriction and reduction in breathing capacity in some asthmatics.

Reactive Organic Gases (ROGs) and Volatile Organic Compounds (VOCs). Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including reactive organic gases (ROGs) and volatile organic compounds (VOCs). Both ROGs and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources

of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Toxic Air Contaminants (TACs). Toxic air contaminants (TACs) (also referred to as hazardous air pollutants [HAPs]), are pollutants that result in an increase in mortality, a serious illness, or pose a present or potential hazard to human health. Health effects of TACs may include cancer, birth defects, and immune system and neurological damage.

TACs can be separated into carcinogens and noncarcinogens based on the nature of the physiological degradation associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which heath impacts would not occur. Noncarcinogenic TACs differ in that there is a safe level in which it is generally assumed that no negative health impacts would occur. These levels are determined on a pollutant-by-pollutant basis.

TACs are not considered criteria air pollutants and thus are not specifically addressed through the setting of ambient air quality standards. Instead, the EPA and CARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology (MACT or BACT) to limit emissions.

SENSITIVE RECEPTORS

Sensitive populations are more susceptible to the effects of air pollution than is the general population. The following types of people are most likely to be adversely affected by air pollution, as identified by CARB: children under 14, elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high concentration of these sensitive population groups are called sensitive receptors and include residential areas, hospitals, day-care facilities, elder-care facilities, elementary schools and parks. Existing sensitive receptors located in the Project vicinity include residential uses, schools, parks and places of worship. Sensitive receptors are depicted in Table 4.5-2 (Sensitive Receptors).

Table 4.5-2
Sensitive Receptors

Type	Name	Distance from Project Site (feet)	Direction from Project Site
Residential	Residential Uses	140	North
		697	South
		390	Southwest
		1,600	East
		360	West
Schools	Kids Place Daycare and Preschool	1,356	South
	Freiler Middle School	3,960	East
Parks	Sports Park	710	East
	Mini Park	2,300	South
Religious Centers	Southwinds Church of Tracy	4,434	North

Source: Google Earth 2010. Sensitive Receptor population utilized in this analysis are those within a one-mile radius of the Project site.

4.5.2 REGULATORY SETTING

FEDERAL FRAMEWORK

U.S. Environmental Protection Agency

The EPA is responsible for implementing the Federal Clean Air Act (FCAA), which was first enacted in 1955 and amended numerous times after. The FCAA established federal air quality standards known as the National Ambient Air Quality Standards (NAAQS). These standards identify levels of air quality for "criteria" pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect the public health and welfare. The criteria pollutants are O_3, CO, NO_2 (which is a form of NO_X), SO_2 (which is a form of SO_x), particulate matter less than 10 and 2.5 microns in diameter (PM_{10} and $PM_{2.5}$, respectively), and lead (Pb). Refer to Table 4.5-3 (National and California Ambient Air Quality Standards).

Table 4.5-3
National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California[1]		Federal[2]	
		Standard[3]	Attainment Status	Standards[4]	Attainment Status
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m³)	**Nonattainment**	NA[5]	NA[5]
	8 Hours	0.07 ppm (137 µg/m³)	**Nonattainment**	0.075 ppm (147 µg/m³)	**Nonattainment**
Particulate Matter (PM_{10})	24 Hours	50 µg/m³	**Nonattainment**	150 µg/m³	Attainment
	Annual Arithmetic Mean	20 µg/m³	**Nonattainment**	N/A[6]	Attainment
Fine Particulate Matter ($PM_{2.5}$)	24 Hours	No Separate State Standard		35 µg/m³	**Nonattainment**
	Annual Arithmetic Mean	12 µg/m³	**Nonattainment**	15.0 µg/m³	**Nonattainment**
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m³)	Attainment	9 ppm (10 mg/m³)	Attainment
	1 Hour	20 ppm (23 mg/m³)	Attainment	35 ppm (40 mg/m³)	Attainment
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	N/A	53 ppb (100 µg/m³)	Attainment
	1 Hour	0.18 ppm (339 µg/m³)	Attainment	100 ppb (188 µg/m³)	N/A
Lead (Pb)	30 days average	1.5 µg/m³	Attainment	N/A	N/A
	Calendar Quarter	N/A	N/A	1.5 µg/m³	Attainment
Sulfur Dioxide (SO_2)	24 Hours	0.04 ppm (105 µg/m³)	Attainment	N/A	N/A
	3 Hours	N/A	N/A	N/A	N/A
	1 Hour	0.25 ppm (655 µg/m³)	Attainment	75 ppb (196 µg/m³)	Unclassified
Visibility-Reducing Particles	8 Hours (10 a.m. to 6 p.m., PST)	Extinction coefficient = 0.23 km@<70% RH	Unclassified	**No Federal Standards**	
Sulfates	24 Hour	25 µg/m³	Attainment		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Unclassified		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m³)	Unclassified		

µg/m³ = micrograms per cubic meter; ppm = parts per million; ppb = parts per billion; km = kilometer(s); RH = relative humidity; PST = Pacific Standard Time; N/A = Not Applicable.

Notes:
1 – California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, suspended particulate matter-PM_{10} and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations. In 1990, CARB identified vinyl chloride as a toxic air contaminant, but determined that there was not sufficient available scientific evidence to support the identification of a threshold exposure level. This action allows the implementation of health-protective control measures at levels below the 0.010 ppm ambient concentration specified in the 1978 standard.
2 – National standards (other than ozone, particulate matter and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. EPA also may designate an area as *attainment/unclassifiable*, if: (1) it has monitored air quality data that show that the area has not violated the ozone standard over a three-year period; or (2) there is not enough information to determine the air quality in the area. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3 – Concentration is expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4 – National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
5 – The Federal 1-hour ozone standard was revoked on June 15, 2005 in all areas except the 14 8-hour ozone nonattainment Early Action Compact (EAC) areas.
6 – The Environmental Protection Agency revoked the annual PM_{10} standard in 2006 (effective December 16, 2006).
Source: California Air Resources Board and United States Environmental Protection Agency, September 8, 2010.

STATE FRAMEWORK

California Air Resources Board

CARB administers the air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQS in Table 4.5-3, are generally more stringent and apply to more pollutants than the NAAQS. In addition to the criteria pollutants, CAAQS have been established for visibility reducing particulates, hydrogen sulfide and sulfates. The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQS. These AQMP's also serve as the basis for preparation of the State Implementation Plan (SIP) for California.

Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data show that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard, and are not used as a basis for designating areas as nonattainment.

LOCAL FRAMEWORK

San Joaquin Valley Air Pollution Control District (SJVAPCD)

Regional Air Quality Management Districts (AQMD) or Air Pollution Control Districts (APCD) throughout the state are the regulatory authority for each of the air basins within California. These districts have the primary responsibility to control air pollution from all sources other than those directly emitted from motor vehicles, which are the responsibility of the CARB and the EPA, and are required to adopt and enforce rules and regulations (produce attainment plans) that include air pollution control programs designed to achieve the NAAQS and CAAQS within their air basin and enforce applicable state and federal law.

State law recognized that air pollution does not respect political boundaries and, therefore, required CARB to divide the state into separate air basins that each has similar geographical and meteorological conditions. Additionally, many county agencies began to realize that air quality problems are best

managed on a regional basis and began to combine their regulatory agencies into regional agencies. This was the case for the Basin, where until 1991 each county operated a local air pollution control district.

The SJVAPCD is one of 35 air quality management districts in the state that have prepared AQMPs to accomplish a five-percent annual reduction in emissions. The SJVAPCD has prepared the *2007 Ozone Plan* to achieve federal and state standards for improved air quality in the Basin 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 Basin. The *2007 Ozone Plan* calls for major advancements in pollution control technologies for mobile and stationary sources of air pollution. The *2007 Ozone Plan* call 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 CARB. CARB concurred with the request and submitted the request to the EPA on May 8, 2006. On October 30, 2006, the EPA issued a Final Rule determining that the Basin had attained the NAAQS for PM_{10}. However, the EPA noted that the Final Rule did not constitute a redesignation to attainment until all of the FCAA requirements under Section 107(d)(3) were met.

Section 107(d)(3) of the FCAA states that a nonattainment area can be redesignated to attainment if it meets the following criteria:

1. EPA has determined that the NAAQS have been attained.
2. EPA has fully approved the applicable implementation plan under section 110(k) of the FCAA.
3. EPA has determined that the improvement in air quality is due to permanent and enforceable emission reductions.
4. The state has met all applicable requirements for the area under Section 110 and Part D.
5. EPA has fully approved a maintenance plan, including a contingency plan, for the area under Section 175(A) of the federal CAA.

The Basin has met criteria 1, 2 and 4 of Section 103(d)(3). The *2007 PM_{10} Plan* was developed to comply with criteria 3 and 5 and to proceed with the redesignation process for PM_{10} for the Basin. For the purposes of the *2007 PM_{10} Plan,* the SJVAPCD has assumed that the EPA's action on the redesignation request would be complete in 2009. The maintenance plan must provide for continued attainment 10 years after designation. Therefore, the SJVAPCD has targeted 2020 as the maintenance year. Additional maintenance plans will be submitted to demonstrate attainment through Year 2030.

In addition to the *2007 Ozone Plan* and the *2007 PM_{10} Plan,* the SJVAPCD prepared the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI). The GAMAQI provides lead agencies, consultants, and project applicants with analysis guidance and uniform procedures for addressing air quality in environmental documents. Local jurisdictions are not required to utilize the methodology outlined therein. This document describes the criteria that the 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 January 10, 2002, and is used as a guidance document for this analysis.

City of Tracy

The City of Tracy Development and Engineering Services Department provides dust control measures within the Engineering Design Construction Standards document (dated December 2009). Specifically, Section 102 (Responsibilities of the Contractor) prohibits contractors from discharging smoke, dust, or any other air contaminant into the atmosphere in such quantity that would violate the regulations of any legally constituted authority.

4.5.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

California Environmental Quality Act

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant air quality impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- 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 (including releasing emissions that exceed quantitative thresholds for ozone precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

San Joaquin Valley Air Pollution Control District

For the purposes of this air quality analysis, actions that violate federal standards for criteria pollutants (i.e., primary standards designed to safeguard the health of people considered to be sensitive receptors while outdoors and secondary standards designed to safeguard human welfare) are considered significant impacts. Additionally, actions that violate state standards developed by CARB or criteria developed by the SJVAPCD, including thresholds for criteria pollutants, are considered significant impacts. Projects that would generate 10 tons per year of either ROG or NO_x are considered to have a potentially significant air quality impact. The SJVAPCD has also established a threshold of 15 tons per year for PM_{10}. As previously mentioned, the Basin is classified as a nonattainment area for ozone. In order to achieve the federal and state standards for ozone, it is necessary to regulate ROG and NO_X, which contribute to the formation of ozone. This includes both direct and indirect emissions.

In addition to the thresholds cited above, the SJVAPCD has thresholds applicable to CO emissions that require projects to perform localized CO modeling. These thresholds include the following:

- Project traffic would impact intersections or roadway links operating at level of service (LOS) D, E or F or would cause LOS to decline to D, E or F
- Project traffic would increase traffic volumes on nearby roadways by 10 percent or more
- Project would contribute to CO concentrations exceeding CAAQS of 9 parts per million (ppm) averaged over 8 hours and 20 ppm for one hour

Construction Specific Thresholds

The SJVAPCD's approach to analysis of construction impacts is to require implementation of effective and comprehensive control measures rather than to require detailed quantification of emission concentrations for modeling of direct impacts. PM_{10} emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions and other factors, making quantification difficult. Despite this variability in emissions, experience has shown that there are a number of feasible control measures that can be reasonably implemented to significantly reduce PM_{10} emissions from construction activities. The SJVAPCD has determined that compliance with Regulation VIII for all sites and implementation of all other control measures indicated in Tables 6-2 and 6-3 of the GAMAQI would constitute sufficient mitigation to reduce PM_{10} impacts to a level considered less than significant.

Odor-Based Thresholds

Projects that would potentially generate objectionable odorous emissions that would be located near existing sensitive receptors or other land uses where people may congregate could constitute a significant air quality impact to existing uses. Also, residential or other sensitive receptor projects built for the intent of attracting people locating near existing odor sources could also cause a significant air quality impact for the proposed uses. The SJVAPCD suggests a threshold based on the distance of the odor source from people and complaint records for a facility or similar facility. The threshold would be more than one confirmed complaint per year averaged over a three-year period, or three unconfirmed complaints per year averaged over a three-year period.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Short-Term (Construction) Emissions

4.5-1 IMPLEMENTATION OF THE PROJECT WOULD RESULT IN TEMPORARY CONSTRUCTION-RELATED DUST AND VEHICLE EMISSIONS WITHIN THE PROJECT SITE.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Short-term air quality impacts are predicted to occur during grading and construction operations associated with implementation of the proposed Project. Temporary air emissions would result from the following activities:

- Particulate (fugitive dust) emissions from grading and building construction
- Exhaust emissions from the construction equipment and the motor vehicles of the construction crew

Potential odors could arise from the diesel construction equipment used onsite, as well as from architectural coatings and asphalt off-gassing. Odors generated during construction activities would be temporary and are not considered to be a significant impact. Emissions produced during grading and construction activities are short-term, as they would exist only during construction.

The SJVAPCD's approach to CEQA analyses of construction impacts is to require implementation of effective and comprehensive control measures rather than to require detailed quantification of emissions. PM_{10} and other criteria pollutants emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors, making quantification difficult. Despite the variability in emissions, previous construction activities and monitoring has indicated that implementation of feasible control measures can significantly reduce PM_{10} and other criteria pollutant emissions.

The Project proposes annexation of the Project site to the City and includes prezoning the site Planned Unit Development (PUD). Future development of the Project site would allow a maximum of 466,000 square feet commercial and office uses within the 43-acre site. The SJVAPCD has developed control measures that can be reasonably implemented to significantly reduce emissions from construction. Compliance with Regulation VIII and implementation of all other control measures are included in Mitigation Measures 4.5-1a and 4.5-1b. The SJVAPCD considers construction-related emissions from all projects in this region to be mitigated to a less-than significant level if SJVAPCD-recommended PM_{10} fugitive dust rules (collectively called Regulation VIII and included as Mitigation Measure 4.5-1a) and equipment exhaust emission controls (outlined in Mitigation Measures 4.5-1b) are implemented. With implementation of the proposed mitigation measures, fugitive dust impacts to surrounding sensitive land uses would be considered less than significant.

Naturally Occurring Asbestos

Pursuant to guidance issued by the Governor's Office of Planning and Research, State Clearinghouse, lead agencies are encouraged to analyze potential impacts related to naturally occurring asbestos. Naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations.

Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties of the Sierra Nevada foothills, the Klamath Mountains and Coast Ranges. According to the *General Location Guide for Ultramafic Rock in California – Areas More Likely to Contain Naturally Occurring Asbestos* serpentinite and ultramafic rocks are not known to occur within the Project site and thus there is no potential that the proposed Project would disturb naturally occurring asbestos.

Odors

Potential odors generated during construction operations would be temporary in nature and are concluded to result in less than significant impacts. It should be noted that emissions produced during grading and construction activities are "short-term" in nature as they occur only for the duration of construction.

Mitigation Measures:

4.5-1a Prior to the issuance of any grading, building, or other construction permit, the Project applicant shall demonstrate conformance with SJVAPCD Rule VIII to the satisfaction of the SJVAPCD. The Development and Engineering Services Department shall require that the grading plans, building plans, and specifications stipulate compliance with the control

measures in SJVAPCD Regulation VIII. The mitigation could include the following or may include other measures as determined by the SJVAPCD:

- Properly and routinely maintain all construction equipment, as recommended by manufacturer's manuals, to control exhaust emissions.
- Shut down equipment when not in use for extended periods of time, to reduce exhaust emissions associated with idling engines.
- Encourage ride-sharing and use of transit transportation for construction employees commuting to the project site.
- Use electric equipment for construction whenever possible in lieu of fossil fuel-fired equipment.
- Curtail construction during periods of high ambient pollutant concentrations.
- Construction equipment shall operate no longer than eight cumulative hours per day.
- All construction vehicles shall be equipped with proper emission control equipment and kept in good and proper running order to reduce NO_X emissions.
- All construction activities within the project site shall be discontinued during the first stage smog alerts.
- Construction and grading activities shall not be allowed during first stage ozone alerts. (First stage ozone alerts are declared when ozone levels exceed 0.20 ppm for the 1-hour average.)

4.5-1b Prior to the issuance of any grading, building, or other construction permit, the Project applicant shall demonstrate conformance with SJVAPCD Rule VIII to the satisfaction of the SJVAPCD. The Development and Engineering Services Department shall require that the grading plans, building plans, and specifications stipulate that, in compliance with the fugitive dust control measures in SJVAPCD Regulation VIII. The mitigation could include the following or may include other measures as determined by the SJVAPCD:

- Water previously disturbed exposed surfaces (soil) a minimum of three-times/day or whenever visible dust is capable of drifting from the site or approaches 20 percent opacity.
- Water all haul roads (unpaved) a minimum of three-times/day or whenever visible dust from such roads is capable of drifting from the site or approaches 20 percent opacity.
- All access roads and parking areas shall be covered with asphalt-concrete paving or water sprayed regularly.
- Dust from all onsite and offsite unpaved access roads shall be effectively stabilized by applying water or using a chemical stabilizer or suppressant.
- Reduce speed on unpaved roads to less than 15 miles per hour.
- Install and maintain a trackout control device that meets the specifications of SJVAPCD Rule 8041 if the site exceeds 150 vehicle trips per day or more than 20 vehicle trips per day by vehicle with three or more axles.
- Stabilize all disturbed areas, including storage piles, which are not being actively utilized for construction purposes using water, chemical stabilizers or by covering with a tarp, other suitable cover or vegetative ground cover.
- Control fugitive dust emissions during land clearing, grubbing, scraping, excavation, leveling, grading or cut and fill operations with application of water or by presoaking.

- When transporting materials offsite, maintain a freeboard limit of at least six inches and cover or effectively wet to limit visible dust emissions.
- Limit and remove the accumulation of mud and/or dirt from adjacent public roadways at the end of each workday. (Use of dry rotary brushes is prohibited except when preceded or accompanied by sufficient wetting to limit visible dust emissions and use of blowers is expressly forbidden).
- Stabilize the surface of storage piles following the addition or removal of materials using water or chemical stabilizer/suppressants.
- Remove visible track-out from the site at the end of each workday.
- Cease grading activities during periods of high winds (greater than 20 miles per hour [mph] over a one-hour period).
- Asphalt-concrete paving shall comply with SJVAPCD Rule 4641 and restrict use of cutback, slow-cure, and emulsified asphalt paving materials.
- Grading should be conducted in phases.
- The Project site shall not be cleared of existing vegetation cover for the preparation of construction until the issuance of grading permits required by construction.
- The Project applicant shall revegetate graded areas as soon as it is feasible after construction is completed.

Level of Significance After Mitigation: Less Than Significant Impact.

Long-Term (Operational) Emissions

4.5-2 ***THE PROPOSED PROJECT WOULD RESULT IN AN OVERALL INCREASE IN THE LOCAL AND REGIONAL POLLUTANT LOAD DUE TO DIRECT IMPACTS FROM VEHICLE EMISSIONS AND INDIRECT IMPACTS FROM ELECTRICITY AND NATURAL GAS CONSUMPTION.***

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

The Project's operational emissions would be generated by area sources and mobile sources as a result of normal day-to-day activities on the Project site after occupation. Area source emissions would be generated by the consumption of natural gas for space and water heaters. Emissions would also be generated during the operation of landscape maintenance equipment, and from consumer products. Mobile emissions would be generated by the motor vehicles traveling to and from the Project site.

Area and Vehicular Source Emissions

Emissions resulting from Project operation were quantified using URBEMIS 2007 (version 9.2.4). This model is a land use and transportation based computer model designed to estimate regional air emissions from new development projects. While previous versions were only designed to estimate emissions from motor vehicle trips, URBEMIS 2007 can estimate emissions from such sources as gas heaters, furnaces or blowers, and landscape maintenance equipment. The model accounts for specific meteorological conditions and topography that characterize each specific air basin in California.

Input into the model was obtained from traffic data within the traffic analysis and assumptions on the nature of land uses constructed within the Project. Electricity and natural gas are utilized by almost every commercial and office development. URBEMIS 2007 default inputs were used to generate the emissions for the area sources. The results are presented in Table 4.5-4 (Long-Term Operational Project Emissions).

Table 4.5-4
Long-Term Operational Project Emissions

Emissions	Pollutant (Tons/Year)		
	ROG	NO_X	PM_{10}
• Area Source	0.58	0.76	0.00
• Vehicles	19.62	35.09	18.86
Total Emissions	20.20	35.85	18.86
SJVAPCD Threshold	*10*	*10*	*15*
Is Threshold Exceeded? (Significant Impact?)	**YES**	**YES**	**YES**

ROG = reactive organic gases NO_X = nitrogen oxides PM_{10} = particulate matter 10 microns in diameter or less

Notes:
1. Based on UREBMIS2007 modeling results, worst-case seasonal emissions for area and mobile emissions, and trip rate data provided in the Section 4.14 (Transportation/Traffic). Refer to Appendix B (Air Quality Data), for detailed model input/output data.

Buildout of the Project would result in increased vehicle trips in the San Joaquin Valley. The vehicles associated with these trips would emit criteria pollutants including NO_X and ROG, which are considered ozone precursors. The Project site is a non-attainment area for federal air quality standards for ozone and particulates. NO_X and ROG are regulated as ozone precursors. A precursor is defined by the SJVAPCD as "a directly emitted air contaminant that, when released into the atmosphere forms or causes to be formed or contributes to the formation of a secondary air contaminant for which an ambient air quality standard has been adopted…"

The predicted emissions associated with vehicular traffic (mobile sources) are not subject to the SJVAPCD permit requirements. However, the SJVAPCD is responsible for overseeing efforts to improve air quality within the San Joaquin Valley. The SJVAPCD has prepared an AQMP to bring the San Joaquin Valley into compliance with the CAAQS for ozone. The SJVAPCD reviews land use changes to evaluate the potential impact on air quality. The SJVAPCD has established a significance level for ROG and NO_X of 10 tons per year each and 15 tons per year for PM_{10}.

As shown in Table 4.5-4, Project-related mobile source emissions for ROG, NO_X and PM_{10} attributable to Project operations would result in exceedances of the SJVAPCD thresholds. As previously stated, the Basin is currently designated as a non-attainment area for ozone and particulates. Emissions of criteria pollutant would further lead to the degradation of ambient air quality. The proposed Project would result in significant exceedances of the SJVAPCD thresholds.

The rural and suburban location and character of the proposed Project limits the potential for reducing operational air quality emissions to a less than significant level. Available air quality mitigation strategies for commercial development are most effective on employee work trips, which comprise a very small fraction of total Project trips. Additionally, implementation and enforcement of such measures are impractical unless they are imposed regionally. Therefore, impacts associated with long-term mobile source emissions would be considered significant and unavoidable.

Indirect Source Rule

SJVAPCD Rule 9510 (Indirect Source Rule [ISR]) requires developers of large residential, commercial and industrial projects to reduce ozone precursor emissions (NO_X) and particulate (PM_{10} and $PM_{2.5}$) emissions generated by their projects. Under the ISR, the Project would be required to reduce operational NO_X emissions by 33 percent and operational PM_{10} emissions by 50 percent over 10 years. The actual required reductions would be determined by SJVAPCD when an application is submitted prior to "the last discretionary approval" for the Project. However, the methods used by SJVAPCD to determine the required mitigations are consistent with the methods used in this analysis (e.g., use of latest URBEMIS2007 model using project size and trip generation rates). The mitigation measures required by the ISR for this Project may be determined through several permit applications since each individual project could apply at different times as final development plans are developed. The Project's impact to air quality with respect to PM_{10} would be reduced further than the levels reported in Table 4.5-4 through application of the ISR. Emissions of ozone precursor emissions (i.e., ROG and NO_X) would also be reduced with the required ISR mitigation. However, Project impacts on regional air quality, with respect to elevated ozone and PM_{10}, would remain significant and unavoidable since Project emissions would contribute to region-wide emissions that cause exceedances of the federal and state ozone and PM_{10} standards.

Localized CO Emissions

CO emissions are a function of vehicle idling time, meteorological conditions and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (e.g., adversely affect residents, school children, hospital patients, the elderly, etc.). The SJVAPCD requires CO "hotspot" modeling for projects that reduce the LOS on surrounding roadways to an E or an F, or worsens traffic along roadways that are already operating at an LOS F.

Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections. Table 4.5-5 (Project Buildout Carbon Monoxide Concentrations) provides the list of intersections within the Project area that required a CO hotspot analysis.

Table 4.5-5
Project Buildout Carbon Monoxide Concentrations

Intersection[1]	1-Hour CO (ppm)[2]		8-Hour CO (ppm)[1]	
	1-Hour Standard	Future + Project	8-Hour Standard	Future + Project
2. Lammers Road/Grant Line Road	20 ppm	3.7	9 ppm	2.49
3. Costco Driveway/Grant Line Road	20 ppm	3.7	9 ppm	2.49
6. I-205 Off-Ramp/Grant Line Road	20 ppm	3.7	9 ppm	2.49
9. Corral Hollow Road/Byron Road	20 ppm	3.7	9 ppm	2.49
11. Corral Hollow Road/Eleventh Street	20 ppm	3.7	9 ppm	2.49
17. Project Access 2/Grant Line Road	20 ppm	3.7	9 ppm	2.49

Notes:
1. The intersection numbering corresponds to the intersection ID numbers as noted in Section 4.14 (Transportation/Traffic).
2. As measured at a distance of 10 feet from the corner of the intersection predicting the highest value. Presented one-hour CO concentrations include a background concentration of 3.4 ppm. Eight-hour concentrations are based on a persistence of 0.67 of the one-hour concentration.

The projected traffic volumes were modeled using the BREEZE ROADS dispersion model. The resultant values were then added to an ambient concentration. A receptor height of 1.8 meters was used in

accordance with the EPA's recommendations. The calculations assume a meteorological condition of almost no wind (0.5 meters/second), a flat topological condition between the source and the receptor, and a mixing height of 1,000 meters. A standard deviation of five degrees was used for the deviation of wind direction. The suburban land classification was used for the aerodynamic roughness coefficient. This follows the BREEZE ROADS user's manual definition of suburban as "regular coverage with large obstacles, open spaces roughly equal to obstacle heights, villages, mature forests." All of the above parameters are based on the standards stated in the *Transportation Project-Level Carbon Monoxide (CO Protocol)*, December 1997.

For the purposes of this analysis, the ambient concentration used in the modeling was the highest one-hour measurement from 2009 (the latest year data was available) of SJVAPCD monitoring data at the Stockton-Hazelton Monitoring Station. Actual future ambient CO levels may be lower due to emissions control strategies that would be implemented between now and Project buildout. Due to changing meteorological conditions over an eight-hour period which diffuses the local CO concentrations, the eight-hour CO level concentrations have been found to be typically proportional and lower than the one-hour concentrations, where it is possible to have stable atmospheric conditions last for the entire hour. Therefore, eight-hour CO levels were calculated using the locally derived persistence factor as stated in the CO protocol. The local persistence factor is derived by calculating the highest ratio of eight-hour to one-hour maximum locally measured CO concentrations from the most recent three years of data. Table 4.5-1 shows that of the most recent three years of data, year 2009 has the highest eight-hour to one-hour ratio of 0.67.

The intersections in the study area currently operate at an LOS ranging from LOS A to LOS F for PM peak hour activities. At proposed Project buildout, six of these intersections would reduce the LOS to E or F in an unmitigated condition, requiring CO hotspot analyses. As indicated in Table 4.5-5, CO concentrations would be well below the federal and state standards. The modeling results are compared to the CAAQS for CO of 9 ppm on an eight-hour average and 20 ppm on a one-hour average. Neither the one-hour average nor the eight-hour average would be equaled or exceeded. Impacts in regards to CO hotspots would be less than significant.

Odors

The Project would consist of commercial and office land uses. The generation of odors and hazardous air pollutants is generally associated with certain types of industrial and agricultural activities other than warehouses. Therefore, the Project is not expected to result in the generation of odors or hazardous air pollutants. The odor impacts are, therefore, considered less than significant.

Toxic Air Contaminants

Implementation of the proposed Project would not result in the long-term operation of any major onsite stationary sources of TACs. In addition, no major stationary sources of TACs have been identified in the vicinity of the Project site. Therefore, implementation of the proposed Project would not be anticipated to result in an increased exposure of sensitive receptors to localized concentrations of TACs that would exceed applicable standards. Impacts in this regard are considered less than significant.

Conclusion

As indicated in the analysis above, the proposed Project would result in exceedances of the SJVAPCD thresholds of significance for ROG, NO_X and PM_{10}. However, as previously stated, the Project is subject to SJVAPCD's ISR to reduce NO_X and PM_{10} emissions (refer to Mitigation Measure 4.5-2). The

measures required by the ISR would be determined through several permit applications as each individual project could apply at different times as final development plans are developed. The Project's impact to air quality with respect to PM_{10} would be reduced further than the levels reported in Table 4.5-4 through application of the ISR. Emissions of ozone precursor emissions (i.e., ROG and NO_X) would also be reduced with the required ISR mitigation. However, the Project impacts on regional air quality, with respect to elevated ozone and PM_{10} levels, would be significant as the Project's emissions would contribute to region-wide emissions that cause exceedances of the state and federal ozone and PM_{10} standards.

Mitigation Measure:

4.5-2 Prior to issuance of building permits, the Development and Engineering Services Department shall verify that the Project has demonstrated compliance with SJVAPCD Rule 9510, Indirect Source Review (ISR) to the satisfaction of the SJVAPCD. The Project applicant shall coordinate with the SJVAPCD to ensure that the Project meets the requirements of SJVAPCD Rule 9510, which requires the following reductions:

- 20 percent of construction-exhaust NO_X
- 45 percent of construction-exhaust PM_{10}
- 33 percent of operational NO_X over 10 years
- 50 percent of operational PM_{10} over 10 years

The SJVAPCD provides numerous measures to attain the emissions reductions targets above, which are available on their website (http://www.valleyair.org/ISR/ISROnSiteMeasures.htm). The SJVAPCD allows project applicants to choose to implement the SJVAPCD-approved emissions reduction measures, or pay an emission based fee to fund off-site emissions reduction projects. If in-lieu fees are required, the Project applicant shall coordinate with the SJVAPCD to calculate the amount of the fees required to off-set Project impacts.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

Plan Consistency

4.5-3 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CONFLICT WITH THE MOST RECENT AIR QUALITY MANAGEMENT PLAN.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Air quality conformity refers to the process whereby transportation plans, programs and projects conform to the requirements of applicable general plans and regional plans. Regional plans that apply to the proposed Project include the SJVAPCD Air Quality Attainment Plans (AQAPs) for ozone and PM_{10}, which are part of the State Implementation Plan (SIP).

The California Clean Air Act (CCAA) requires non-attainment districts with severe to extreme air quality problems to provide for a five percent reduction with non-attainment emissions per year. The AQAPs for ozone and PM_{10} prepared for the Basin by the SJVAPCD fulfills this requirement. Banked emission

reduction credits are included in the emissions inventories for the AQAP and provide an additional means to attaining the required five percent reduction in these inventories per year.

Air quality conformity to an implementation plan as required in the CCAA Section 176(c) is defined as: "Conformity to the plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards; and that such activities would not (i) cause or contribute to any new violation of any standard in any area; (ii) increase the frequency or severity of any existing violation of any standard in any area; or (iii) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area." The Air Quality Conformity document adopted July 22, 2010, demonstrates that the federally approved Regional Transportation Plan (RTP) and the Federal Transportation Improvement Program (FTIP) conform to the SIP for controlling air pollution sources.

If a project is found to interfere with the region's ability to comply with federal and state air quality standards, local governments then need to consider project modifications or provide mitigation measures to eliminate the inconsistency of the project plans. In order for a project to be considered "consistent" with the latest AQAP, the project must be consistent with the goals, objectives and assumptions in the respective plan to achieve the federal and state air quality standards. As indicated in Impact 4.5-2, above, the proposed Project would result in exceedances of SJVAPCD thresholds for criteria pollutants. As a result, the proposed Project would be inconsistent with the *2007 Ozone Plan* in this regard.

The proposed Project is intended to meet the City General Plan goals, objectives, policies and actions and would develop commercial and office buildings consistent with the development potential anticipated for the Project site by the City General Plan. The Project would not increase the intensity of the development planned for the site above levels anticipated by the General Plan. The proposed Project would provide for the expansion of the City's regional commercial corridor, remain consistent with the principles and objectives of the I-205 Corridor Specific Plan, and provide and maintain connectivity with the existing shopping areas of the I-205 Corridor Specific Plan.

However, as indicated within the General Plan Environmental Impact Report (General Plan EIR), the City General Plan would not be consistent with SJVAPCD's *Clean Air Plans.* As discussed within the General Plan EIR, the projected growth within the City would lead to an increase in the region's vehicle miles traveled (VMT), beyond what has been identified by the anticipated San Joaquin Council of Governments (SJCOG) and the SJVAPCD. Impacts associated with plan consistency would also be considered significant and unavoidable for the proposed Project.

Mitigation Measure: Implement Mitigation Measure 4.5-2. No other feasible mitigation measures are available.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

4.5.4 ANALYSIS OF CUMULATIVE IMPACTS

4.5-4 IMPLEMENTATION OF THE PROPOSED PROJECT COULD IMPACT REGIONAL AIR QUALITY LEVELS ON A CUMULATIVELY CONSIDERABLE BASIS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

The SJVAPCD Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) defines cumulative impacts as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The document also states "any project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact." Impacts of local criteria pollutants are cumulatively significant when modeling shows that the combined emissions from the proposed Project and other existing and planned projects would exceed air quality standards.

The GAMAQI states that cumulative CO impacts are accounted for in the CO hotspot analysis. As discussed in Impact 4.5-2, under Long-Term (Operational) Emissions, CO impacts would be less than significant; however, area and mobile sources would be significant and unavoidable (refer to Table 4.5-5). Since construction emissions from development of the Project cannot be mitigated to a less than significant level, operation of those projects would exceed SJAVPCD thresholds, and the construction and operation of 466,000 square feet of commercial and office uses would have similar significant and unavoidable impacts. Thus, cumulative impacts would be considered significant and unavoidable.

The proposed Project would be consistent with the City General Plan vision for UR 2 land use designation. The General Plan EIR analyzed the long-term development of the City and found that buildout under the City General Plan is projected to lead to substantial increases in vehicle travel and contribute to existing air quality issues in the Basin. These air quality impacts associated with increases in regional traffic are anticipated to occur after 2030, constituting a cumulatively significant impact. As a result, the proposed Project would have significant air quality impact at both the Project and the cumulative level.

Mitigation Measure: Implement Mitigation Measures 4.5-1a, 4.5-1b and 4.5-2. No other feasible mitigation measures are available.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

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4.6 GREENHOUSE GAS EMISSIONS

This section evaluates greenhouse gas (GHG) emissions associated with the proposed Project and analyzes Project compliance with applicable regulations. Consideration of the Project's consistency with applicable plans, policies and regulations, as well as the introduction of new sources of GHGs, is included in this section.

4.6.1 ENVIRONMENTAL SETTING

The natural process through which heat is retained in the troposphere is called the "greenhouse effect."[1] The greenhouse effect traps heat in the troposphere through a three fold process as follows: short wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit it into space and toward the Earth. This "trapping" of the long wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

GLOBAL CLIMATE CHANGE GASES

The most abundant GHGs are water vapor and carbon dioxide (CO_2). Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-radiate long wave radiation. The GWP of a gas is determined using CO_2 as the reference gas with a GWP of 1.

GHGs normally associated with the proposed Project include the following:[2]

- *Water Vapor (H_2O)*. Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers, and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively.

  The primary human-related source of water vapor comes from fuel combustion in motor vehicles; however, this is not believed to contribute a significant amount (less than one percent) to atmospheric concentrations of water vapor. The Intergovernmental Panel on Climate Change (IPCC) has not determined a GWP for water vapor.
- *Carbon Dioxide (CO_2)*. Carbon dioxide is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 35 percent.[3] Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWPs for other GHGs.
- *Methane (CH_4)*. Methane is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the U.S., the top three sources of methane are landfills, natural gas systems and enteric fermentation. Methane is the

[1] The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth's surface to 10 to 12 kilometers.

[2] All GWPs are given as 100 year GWP. Unless noted otherwise, all GWPs were obtained from the Intergovernmental Panel on Climate Change. Climate Change (Intergovernmental Panel on Climate Change, *Climate Change, The Science of Climate Change – Contribution of Working Group I to the Second Assessment Report of the IPCC*, 1996).

[3] U.S. Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2004*, April 2006.

primary component of natural gas, which is used for space and water heating, steam production and power generation. The GWP of methane is 21.

- *Nitrous Oxide (N_2O)*. Nitrous oxide is produced by both natural and human related sources. Primary human related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production and nitric acid production. The GWP of nitrous oxide is 310.
- *Hydrofluorocarbons (HFCs)*. HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is growing, as the continued phase out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The GWP of HFCs range from 140 for HFC-152a to 11,700 for HFC-23.[4]
- *Perfluorocarbons (PFCs)*. Perfluorocarbons are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semi conductor manufacturing. Perfluorocarbons are potent GHGs with a GWP several thousand times that of carbon dioxide, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years).[5] The GWP of PFCs range from 6,500 to 9,200.
- *Sulfur hexafluoride (SF_6)*. Sulfur hexafluoride is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. Sulfur hexafluoride is the most potent GHG that has been evaluated by the IPCC with a GWP of 23,900. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio compared to carbon dioxide (four parts per trillion [ppt] in 1990 versus 365 parts per million [ppm], respectively).[6]

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric ozone (O_3)depletors; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

- *Hydrochlorofluorocarbons (HCFCs)*. HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The U.S. is scheduled to achieve a 100 percent reduction to the cap by 2030. The GWPs of HCFCs range from 93 for HCFC-123 to 2,000 for HCFC-142b.[7]
- *1,1,1 trichloroethane*. 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The GWP of methyl chloroform is 110 times that of carbon dioxide.[8]
- *Chlorofluorocarbons (CFCs)*. CFCs are used as refrigerants, cleaning solvents, and aerosols spray propellants. CFCs were also part of the EPA's Final Rule (57 FR 3374) for the phase out of O_3 depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents. Nevertheless, CFCs remain suspended in the

[4] U.S. Environmental Protection Agency, *High GWP Gases and Climate Change*, June 22, 2010. http://www.epa.gov/highgwp/scientific.html#hfc
[5] U.S. Environmental Protection Agency, *High GWP Gases and Climate Change*, June 22, 2010. http://www.epa.gov/highgwp/scientific.html#pfc
[6] U.S. Environmental Protection Agency, *High GWP Gases and Climate Change*, June 22, 2010. http://www.epa.gov/highgwp/scientific.html#sf6
[7] U.S. Environmental Protection Agency, *Protection of Stratospheric Ozone: Listing of Global Warming Potential for Ozone Depleting Substances*, dated October 29, 2009. http://www.epa.gov/EPA-AIR/1996/January/Day-19/pr-372.html
[8] Ibid.

atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with GWPs ranging from 4,600 for CFC 11 to 14,000 for CFC 13.[9]

4.6.2 REGULATORY SETTING

FEDERAL FRAMEWORK

The Federal Clean Air Act (FCAA) requires the U.S. Environmental Protection Agency (EPA) to define national ambient air quality standards (national standards) to protect public health and welfare in the U.S. The FCAA does not specifically regulate GHG emissions; however, on April 2, 2007, the U.S. Supreme Court in *Massachusetts v. U.S. Environmental Protection Agency*, determined that GHGs are pollutants that can be regulated under the FCAA. The EPA adopted an endangerment finding and cause or contribute finding for GHGs on December 7, 2009. The final findings were published in the Federal Register on December 15, 2009 under Docket ID No. EPA-HQ-OAR-2009-0171. The final rule was effective January 14, 2010.

Under the endangerment finding, the EPA Administrator found that the current and projected atmospheric concentrations of the six, key, well-mixed GHGs (CO_2, CH_4, N_2O, HFCs, PFCs and SF_6) threaten the public health and welfare of current and future generations. Under the cause of contribute finding, the EPA Administrator found 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.

Based on these findings, on April 1, 2010, the EPA finalized the light-duty vehicle rule controlling GHG emissions. This rule confirmed that January 2, 2011, is the earliest date that a 2012 model year vehicle meeting these rule requirements may be sold in the U.S. On May 13, 2010, the EPA issued the final GHG Tailoring Rule. This rule set thresholds for GHG emissions that define when permits under the Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. Currently, EPA rules do not cover residential construction projects. Implementation of the Federal rules is expected to reduce the level of emissions from new motor vehicles and large stationary sources.

STATE FRAMEWORK

Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is occurring, and that there is a real potential for severe adverse environmental, social and economic effects in the long term. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

There are currently no state regulations in California that establish ambient air quality standards for GHGs. However, California has passed laws directing the California Air Resources Board (CARB) to develop actions to reduce GHG emissions, and several state legislative actions related to climate change and GHG emissions have come into play in the past decade.

[9] U.S. Environmental Protection Agency, *Class I Ozone Depleting Substances*, August 19, 2010. http://www.epa.gov/ozone/ods.html

Assembly Bill 1493 (AB 1493). AB 1493 required CARB to develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State."

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR Section 1900, 1961), and adoption of Section 1961.1 (13 CCR Section 1961.1), require automobile manufacturers, beginning with the 2009 model year, to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily for the transportation of persons). The regulations would reduce GHG emissions from California passenger vehicles by about 22 percent by 2012 and about 30 percent by 2016.[10]

In December 2004, a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against CARB to prevent enforcement of 13 CCR Sections 1900 and 1961, as amended by AB 1493 and 13 CCR 1961.1 (*Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in Her Official Capacity as Executive Director of the California Air Resources Board, et al.* [456 F.Supp.2d 1150, 1172, E.D. Cal. 2006]). The suit in the U.S. District Court for the Eastern District of California contended that California's implementation of regulations that regulate vehicle fuel economy would violate various federal laws, regulations, and policies.

In January 2007, the judge hearing the case accepted a request from the California Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the U.S. Supreme Court case, *Massachusetts v. U.S. Environmental Protection Agency*, the primary issue in question was whether the FCAA authorizes the EPA to regulate CO_2 emissions. The EPA contended that the FCAA does not authorize regulation of CO_2 emissions, whereas Massachusetts and ten other states, including California, sued the EPA to begin regulating CO_2. As mentioned above, the U.S. Supreme Court ruled on April 2, 2007, that GHGs are "air pollutants" as defined under the FCAA and that the EPA is granted authority to regulate CO_2 (*Massachusetts v. U.S. Environmental Protection Agency* [2007] 549 U.S. 05-1120).

On December 12, 2007, the U.S. District Court for the Eastern District of California rejected the automakers' claim by finding that if California receives appropriate authorization from the EPA (the last remaining factor in enforcing the standard), these regulations would be consistent with and have the force of federal law. This authorization to implement more stringent standards in California was requested in the form of a FCAA Section 209(b) waiver in 2005. Since that time, the EPA has failed to act in granting California authorization to implement the standards. Former Governor Schwarzenegger and former Attorney General Edmund G. Brown, Jr. filed a suit against the EPA for the delay. The EPA denied California's request for the waiver to implement AB 1493 in late December 2007. California filed a suit against the EPA for its decision to deny the FCAA waiver. On January 21, 2009, CARB submitted a letter to EPA Administrator Jackson regarding California's request to reconsider the waiver denial. [11] The EPA approved the waiver on June 30, 2009.[12]

[10] California Air Resources Board, *Fact Sheet, Climate Change Emission Control Regulations*, http://www.arb.ca.gov/cc/ccms/factsheets/cc_newfs.pdf, accessed on September 21, 2010.

[11] California Air Resources Board, http://www.arb.ca.gov/newsrel/arbwaiverrequest.pdf, accessed on September 21, 2010.

[12] U.S. Environmental Protection Agency, http://www.epa.gov/otaq/climate/ca-waiver.htm, accessed on September 21, 2010.

Assembly Bill 32 (AB 32). California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished by enforcing a statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. Using these criteria to reduce statewide GHG emissions to 1990 levels by 2020 would represent an approximate 25 to 30 percent reduction in current emissions levels. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows:

- 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

The executive order directed the secretary of the Cal/EPA to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through state incentive and regulatory programs.

Executive Order S-1-07. Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least ten percent by 2020. This order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009, CARB approved the proposed regulation to implement the LCFS. The LCFS will reduce GHG emissions from the transportation sector in California by about 16 million metric tons (MMT) in 2020. The LCFS is designed to reduce California's dependence on petroleum, create a lasting market for clean transportation technology, and stimulate the production and use of alternative, low-

carbon fuels in California. The LCFS is designed to provide a durable framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. One standard is established for gasoline and the alternative fuels that can replace it. A second similar standard is set for diesel fuel and its replacements.

The standards are "back-loaded"; that is, there are more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the LCFS will be based on a combination of strategies involving lower carbon fuels and more efficient, advanced-technology vehicles.

Senate Bill 1368 (SB 1368). SB 1368 required the California Public Utilities Commission (CPUC) to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007. SB 1368 also required California Energy Commission (CEC) to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the GHG emissions rate from a baseload combined-cycle, natural gas–fired plant. Furthermore, the legislation states that all electricity provided to California, including imported electricity, must be generated by plants that meet the standards set by CPUC and CEC.

Senate Bill 97 (SB97). SB 97, signed August 2007 (Chapter 185, Statutes of 2007; PRC Sections 21083.05 and 21097), acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. This bill directs the Governor's Office of Planning and Research (OPR), which is part of the state Resources Agency, to prepare, develop and transmit to CARB guidelines for the feasible mitigation of GHG emissions (or the effects of GHG emissions), as required by CEQA, by July 1, 2009. The Resources Agency is required to certify and adopt those guidelines by January 1, 2010. SB 97 also removes, both retroactively and prospectively, the legitimacy of litigation alleging inadequate CEQA analysis of effects of GHG emissions in the environmental review of projects funded by the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006 or the Disaster Preparedness and Flood Protection Bond Act of 2006 (Proposition 1B or 1E). This provision was repealed by operation of law on January 1, 2010; at that time, any such projects that remain unapproved will no longer be protected against litigation claims of failure to adequately address climate change issues. In the future, this bill will only protect a handful of public agencies from CEQA challenges on certain types of projects, and only for a few years time.

As set forth more fully below, in June 2008, OPR published a technical advisory recommending that CEQA lead agencies make a good-faith effort to estimate the quantity of GHG emissions that would be generated by a proposed project. Specifically, based on available information, CEQA lead agencies should estimate the emissions associated with project-related vehicular traffic, energy consumption, water usage, and construction activities to determine whether project-level or cumulative impacts could occur, and should mitigate the impacts where feasible.[13] OPR requested CARB technical staff to recommend a method for setting CEQA thresholds of significance as described in Section 15064.7 of the *CEQA Guidelines* that will encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state.

On December 30, 2009, the Resources Agency adopted the *CEQA Guidelines* Amendments prepared by OPR, as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the

[13] Governor's Office of Planning and Research (OPR), *CEQA AND CLIMATE CHANGE: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, June 19, 2008.

CEQA Guidelines Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The *CEQA Guidelines* Amendments became effective on March 18, 2010.

Senate Bills 1078 and 107 and Executive Order S-14-08. SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008, former Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020.[14] Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the state come from renewable energy by 2020. CARB adopted the "Renewable Electricity Standard" on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Senate Bill 375 (SB 375). SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

This law also extends the minimum time period for the regional housing needs allocation cycle from five years to eight years for local governments located within an MPO that meets certain requirements. City or county land use policies (including general plans) are not required to be consistent with the regional transportation plan (and associated SCS or APS). However, new provisions of CEQA would incentivize (through streamlining and other provisions) qualified projects that are consistent with an approved SCS or APS, categorized as "transit priority projects."

CARB Scoping Plan

On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap of CARB's plans to achieve GHG reductions in California required by AB 32 through subsequently enacted regulations.[15] CARB's Scoping Plan contains the main strategies California will implement to reduce CO_2 equivalent (CO_2eq) emissions by 174 MMT, or approximately 30 percent, from the state's projected 2020 emissions level of 596 MMT of CO_2eq under a business as usual (BAU) scenario (this is a reduction of 42 MMT CO_2eq, or almost 10 percent, from 2002 to 2004 average emissions, but requires the reductions in the face of population and economic growth through 2020).[16, 17]

[14] Office of the Governor, *Press Release: Governor Schwarzenegger Advances State's Renewable Energy Development*, http://gov.ca.gov/press-release/11073/, accessed on September 21, 2010.

[15] California Air Resources Board, *Climate Change Scoping Plan, A Framework for Change*, December 2008.

[16] Carbon Dioxide Equivalent (CO_2e) - A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

[17] "Business as Usual" refers to emissions that would be expected to occur in the absence of GHG reductions. See http://www.arb.ca.gov/cc/inventory/data/forecast.htm. Note that there is significant controversy as to what BAU means. In determining the GHG 2020 limit, CARB used the above as the "definition." It is broad enough to allow for design features to be counted as reductions.

CARB's Scoping Plan calculates 2020 BAU emissions as the emissions that would be expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. At the time CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB's Scoping Plan are intended to reduce the projected 2020 BAU to 1990 levels, as required by AB 32. However, the San Francisco Superior Court has recently issued a tentative ruling that if issued as proposed, would suspend the implementation of the Scoping Plan pending additional CEQA review.

In Association of Irritated Residents, et al. v. California Air Resources Board, et al., the Superior Court of California for the County of San Francisco (Superior Court) issued a "tentative statement of decision" (Tentative Decision) on January 21, 2011 that prevents CARB from implementing a state-wide GHG regulatory program under AB 32 until the agency complies with the requirements of CEQA. The Tentative Decision partially grants a petition for a writ of mandate brought by a coalition of environmental justice organizations (Petitioners) that alleged that CARB's Scoping Plan violated both AB 32 and CEQA. Although the Superior Court denied all claims related to AB 32, the court found that CARB: 1) failed to adequately discuss and analyze the impacts of alternatives in its proposed Scoping Plan as required by its CEQA implementing regulations; and 2) improperly approved the Scoping Plan prior to completing the environmental review required by CEQA. In upholding the Petitioners' challenge on these two CEQA issues, the Superior Court issued a Peremptory Writ of Mandate and enjoined CARB from further implementation of the Scoping Plan until it complies with all CEQA requirements.

LOCAL FRAMEWORK

City of Tracy Sustainability Action Plan

On February 1, 2011, the City adopted a Sustainability Action Plan in response to AB 32. Consistent with the recommendations of the CARB Scoping Plan, the City's Sustainability Action Plan establishes a GHG reduction goal of 29 percent of community and municipal GHG emissions from 2020 BAU projected levels. To achieve the reduction goal, the Sustainability Action Plan provides various goals and best practices that focus on energy, transportation and land use, solid waste, water use, agriculture and open space, biological resources, air quality, public health, and economic development.

4.6.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

CEQA Thresholds

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant adverse environmental impact if it causes one or more of the following to occur:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs

San Joaquin Valley Air Pollution Control District Thresholds

Under CEQA, the SJVAPCD is an expert commenting agency on air quality and GHG emissions within its jurisdiction or impacting its jurisdiction. The SJVAPCD adopted the *Climate Change Action Plan* in August 2008. The *Climate Change Action Plan* was developed to assist local land use agencies and businesses in complying with state requirements.

In December 2009, the SJVAPCD adopted their *Guidance for Valley Land-Use Agencies in Addressing GHG Emissions Impacts for New Projects Under CEQA* (GHG Guidance) to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the San Joaquin Valley Air Basin. This document provides SJVAPCD-recommended procedures for evaluating potential air quality and GHG impacts during the environmental review process consistent with CEQA requirements. The SJVAPCD GHG Guidance establishes standards that require projects to reduce their GHG emissions by at least 29 percent from BAU levels, through the application of Best Performance Standards (BPS) or other mitigation measures, to achieve a less than cumulatively significant impact under CEQA. To have a less than significant individual and cumulative impact on global climate change, projects must be determined to have reduced or mitigated GHG emissions by 29 percent, consistent with the GHG emission reduction targets established in CARB's AB 32 Scoping Plan.

Process for Evaluating GHG Significance

- Projects determined to be exempt from the requirements of CEQA would have a less than significant individual and cumulative impact for GHG emissions and would not require further environmental review, including analysis of project-specific GHG emissions. Projects exempt under CEQA would be evaluated consistent with established rules and regulations governing project approval and would not be required to implement BPS.
- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.
- Projects implementing BPS would not require quantification of project-specific GHG emissions. Consistent with *CEQA Guidelines*, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.
- Projects not implementing BPS would require quantification of project-specific GHG emissions and demonstration that project-specific GHG emissions would be reduced or mitigated by at least 29 percent, including GHG emission reductions achieved since the 2002-2004 baseline period. Projects achieving at least a 29 percent GHG emission reduction would be determined to have a less than significant individual and cumulative impact for GHG.
- Notwithstanding any of the above provisions, projects requiring the preparation of an EIR for any other reason would require quantification of project-specific GHG emissions. Projects implementing BPS or achieving at least a 29 percent GHG emission reduction would be determined to have a less than significant individual and cumulative impact for GHG.

The use of BPS streamlines the significance determination process by pre-quantifying the emission reductions that would be achieved by a specific GHG emission reduction measure and pre-approving the use of such a measure to reduce project-related GHG emissions. Establishing BPS also streamlines the

CEQA review process by providing project proponents, lead agencies and the public with clear guidance on how to reduce GHG emissions impacts. Thus, project proponents would be able to incorporate project-specific GHG reduction measures during the initial project design phase, which could reduce project-specific GHG impacts to less than significant levels.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Greenhouse Gas Emissions Impacts

4.6-1 GREENHOUSE GAS EMISSIONS GENERATED BY THE PROPOSED PROJECT WOULD HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Direct Project-Related Sources of Greenhouse Gases

Direct project-related GHG emissions include emissions from construction activities, area sources and mobile sources. Table 4.6-1 (Business As Usual Greenhouse Gas Emissions) presents the estimated CO_2, N_2O and CH_4 emissions without the incorporation of Project design features discussed later in this section.

Table 4.6-1
Business As Usual Greenhouse Gas Emissions

Source	CO_2	N_2O		CH_4		Total Metric Tons of CO_2eq
	Metric Tons/year	Metric Tons/year	Metric Tons of CO_2eq[4]	Metric Tons/year	Metric Tons of CO_2eq[4]	
Direct Emissions						
▪ Area Source[1]	831.82	0	0.08	0	0.01	831.91
▪ Mobile Source[2]	19,456.91	8.37	2,593.62	1.74	36.59	22,087.12
Total Direct Emissions[5]	*20,288.73*	*8.37*	*2,593.70*	*1.74*	*36.60*	***22,919.03***
Indirect Emissions						
▪ Electricity Consumption[1]	1,294.06	0.02	5.80	0.11	2.41	1,302.26
▪ Water and Wastewater[3]	323.27	0	0.86	0.02	0.36	324.48
Total Indirect Emissions[5]	*1,617.33*	*0.02*	*6.65*	*0.13*	*2.76*	***1,626.74***
Total Business As Usual Project-Related Emissions	***24,641.15 $MTCO_2eq$/year***					
Total Project-Related Emissions WITH 18.0% Reductions	***20,205.74 $MTCO_2eq$/year***					

Notes:
1. Emissions calculated using URBEMIS 2007 computer model and usage rates and emissions factors from the Energy Information Administration (http://www.eia.doe.gov/emeu/consumptionbriefs/cbecs/pbawebsite/contents.htm) and the California Energy Commission, *Reference Appendices for the 2008 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*, revised June 2009.
2. Emissions calculated using URBEMIS 2007 computer model and EMFAC2007, *Highest (Most Conservative) Emission Factors for On-Road Passenger Vehicles and Delivery Trucks.*
3. Water usage based typical consumption rates for office and commercial uses. Emissions are based on energy usage factors for water conveyance from the California Energy Commission, *Refining Estimates of Water-Related Energy Use in California,* prepared by Navigant Consulting, Inc. CEC-500-2006-118. December (available at: http://www.energy.ca.gov/2006publications/CEC-500-2006-118/CEC-500-2006-118.PDF) and the California Energy Commission, *Water Energy Use in California*, accessed December 2010 (http://www.energy.ca.gov/research/iaw/industry/water.html)
4. CO_2 Equivalent values calculated using the U.S. Environmental Protection Agency Website, *Greenhouse Gas Equivalencies Calculator,*

http://www.epa.gov/cleanenergy/energy-resources/calculator.html, accessed December 2010.
5. Totals may be slightly off due to rounding.
Refer to Appendix B (Air Quality and Greenhouse Gas Emissions Data), for detailed model input/output data.

The URBEMIS 2007 computer model was used to calculate mobile source CO_2 emissions. The URBEMIS 2007 model relies upon trip data provided in Section 4.14 (Transportation/Traffic) and project-specific land use data to calculate emissions. Estimations are based on energy emissions from natural gas usage, as well as automobile emissions. As seen in Table 4.6-1, GHGs associated with area sources and mobile sources would be 831.91 $MTCO_2eq$/year and 22,087.12 $MTCO_2eq$/year, respectively. Total Project-related direct operational emissions would result in 22,919.03 $MTCO_2eq$/year.

Indirect Project-Related Sources of Greenhouse Gases. Indirect project-related GHG emissions include emissions from consumption of electricity, natural gas, water and wastewater. Indirect GHG emissions were calculated using emissions factors from the Energy Information Administration and the California Energy Commission[18]. Electricity consumption for the proposed Project would indirectly result in 1,302.26 $MTCO_2eq$/year and water and wastewater would result in 324.48 $MTCO_2eq$/year (refer to Table 4.6-1).

Total Project-Related Sources of Greenhouse Gases. The total amount of Project-related GHG emissions without accounting for any project design features that would reduce GHG emissions from direct and indirect sources combined would total 24,641.15 $MTCO_2eq$/year.

Consistency with Applicable SJVAPCD GHG Reduction Techniques

SJVAPCD has established standards that require projects to reduce their GHG emissions by at least 29 percent from BAU levels, through the application of BPS or through mitigation measures. To have a less than significant impact, projects must demonstrate that GHG emissions have been reduced or mitigated by 29 percent, consistent with GHG emission reduction targets established in CARB's AB 32 Scoping Plan.

As indicated in Table 4.6-1, Project-related GHG emissions primarily occur through vehicular traffic and energy consumption. GHG emissions from energy consumption can be reduced through building design features that increase energy efficiency, water conservation, and the use of energy efficient appliances. Mobile source GHG emissions can be reduced through project location and design elements that reduce vehicle miles traveled (VMT), such as promoting pedestrian access and the use of public transportation.

As part of the proposed Project, the City would amend the I-205 Corridor Specific Plan to add the Project site to the Specific Plan area. The amendment would also include portions of the City's Sustainability Action Plan Strategies E-2, T-2 and T-17. Sustainability Action Plan Strategy E-2 requires energy efficiency and site design measures and requires amendments to the Zoning Ordinance and City standards to reduce energy use. Strategy T-2 requires reduced parking requirements to reduce vehicle trips and VMT. Strategy T-17 encourages the increased use of low carbon fueled vehicles to reduce vehicle emissions. The Specific Plan Amendment would be prepared in compliance with the guidelines for the implementation of a Specific Plan mandated by the California Government Code (Cal. Gov. Code §§ 65450 - 65457) to create a bridge between the City's General Plan and the specific development proposal for the property. The Specific Plan, as required by law, is consistent with the City of Tracy's General

[18] Energy Information Administration, *A Look at Principal Building Activities*, (http://www.eia.doe.gov/emeu/consumptionbriefs/cbecs/pbawebsite/contents.htm) and the California Energy Commission, *Reference Appendices for the 2008 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*, revised June 2009.

Plan policies. The California Government Code authorizes cities to adopt Specific Plans by resolution to establish a policy document, or by ordinance to establish a regulatory document. The I-205 Corridor Specific Plan is a regulatory plan constituting the zoning for the property. Development plans or subdivision maps, and any action requiring discretionary or ministerial approval by the City shall be consistent with this Specific Plan as adopted by the City Council.

Table 4.6-2 (SJVAPCD GHG Reduction Techniques) illustrates the SJVAPCD measures that apply to the Project. The SJVAPCD provides various measures for commercial, mixed-use, and residential land use sectors. The measures are organized in the following categories: bicycle/pedestrian/transit, building component, mixed-use, parking, and site design. The majority of the measures focus on land use planning decisions, such as creating mixed-use development, discouraging scattered development patterns, and creating favorable jobs to housing ratios. The proposed Project would improve the City's jobs to housing ratio by adding commercial and office uses. Additionally, the Project would not create physical barriers to pedestrian access. The GHG reduction measures are based on the applicable SJVAPCD measures in Table 4.6-2, as well as implementation of portions of the City's Sustainability Action Plan Strategies E-2, T-2 and T-17. Table 4.6-2 also provides the percent reduction for each measure as identified by SJVAPCD. As indicated in Table 4.6-2, the proposed Project would include project design features and measures that would reduce GHG emissions by 18.0 percent.

Table 4.6-2
SJVAPCD GHG Reduction Techniques

SJVAPCD GHG Reduction Techniques	Project Applicability	Percent Reduction
Bicycle/Pedestrian/Transit		
Pedestrian Barriers Minimized. Site design and building placement minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping, and slopes between residential and non-residential uses that impede bicycle or pedestrian circulation are eliminated. Barriers to pedestrian access of neighboring facilities and sites are minimized. This measure is not meant to prevent the limited use of barriers to ensure public safety by prohibiting access to hazardous areas, etc.	The Project is located adjacent to commercial uses and would not create physical barriers to pedestrian access and interconnectivity.	1
Building Component		
Non-Roof Surfaces. Provide shade (within 5 years) and/or use light-colored/high-albedo materials (reflectance of at least 0.3) and/or open grid pavement for at least 30 percent of the site's non-roof impervious surfaces, including parking lots, walkways, plazas, etc.; OR place a minimum of 50 percent of parking spaces underground or covered by structured parking; OR use an open-grid pavement system (less than 50 percent impervious) for a minimum of 50 percent of the parking lot area. Unshaded parking lot areas, driveways, fire lanes, and other paved areas have a minimum albedo of 0.3 or greater	Sustainability Action Plan Measure E-2 requires amendments to the zoning ordinance and City Standards to require this strategy to reduce heat gain. This includes the use of light colored and/or open grid pavement and other non-roof surfaces.	1
Mixed Use		
Urban Mixed-Use. Development of projects predominantly characterized by properties on which various uses, such as office, commercial, institutional, and residential are combined in a single building or on a single site in an integrated development project with functional inter-relationships and a coherent physical design. Mitigation points for this measure depend on job to housing ratio.	The Project proposes a mix of commercial and office uses. Although there is no residential component, the Project is surrounded by residential uses and other commercial uses. The Project would improve the area's jobs/housing balance by adding jobs closer to residential uses.	6
Suburban Mixed-Use. Have at least three of the following on	The proposed Project consists of commercial	3

SJVAPCD GHG Reduction Techniques	Project Applicability	Percent Reduction
site and/or offsite within ¼ mile: Residential Development, Retail Development, Park, Open Space, or Office.	and office uses and is located within ¼ mile of residential and retail uses.	
Parking		
Parking Reduction Beyond Code. Provide parking reduction less than code. Special review of parking required. Recommend a Shared Parking strategy. Trip reductions associated with parking reductions beyond code shall be computed in the same manner as described under measure 11, as the same methodology applies. The maximum achievable trip reduction is 12 percent. This measure can be readily implemented through a Shared Parking strategy, wherein parking is utilized jointly among different land uses, buildings, and facilities in an area that experience peak parking needs at different times of day and day of the week.	Measure T-2 of the City's Sustainability Action Plan requires a zoning ordinance amendment to reduce parking requirements. Reduced parking requirements can be accommodated through a shared parking strategy with commercial and office uses within the Project.	6
Site Design		
Street Grid. Multiple and direct street routing (grid style). The measure applies to projects with an internal connectivity factor (CF)>=0.80, and average of 1/4 mile or less between external connections along perimeter of project.	Based on the intersections in the Project area, the project has a connectivity factor of 0.8.	1
	Total	***18.0***
Source: San Joaquin Valley Air Pollution Control District, *GHG Emission Reduction Measures for Development Projects, Interim GHG Emissions Reductions Calculator,* December 17, 2009.		

Conclusion

As shown in Table 4.6-1, Project-related emissions would be 24,641.15 $MTCO_2eq$/year without reductions from Project design features and Sustainability Action Plan measures. Emissions reductions from Project-design features and implementation of the City's Sustainability Action Plan Strategies E-2, T-2 and T-17, were calculated using the SJVAPCD *Interim GHG Emissions Reductions Calculator*. Based on the Project's location, land uses and implementation of the measures within the Sustainability Action Plan, the Project would reduce GHG emissions by 18.0 percent and would reduce operational-related GHG emissions to 20,205.74 $MTCO_2eq$/year. As a result, the Project would not meet the SJVAPCD's threshold of 29 percent reduction from BAU levels.

Implementation of the Sustainability Action Plan would achieve a 22 to 28 percent reduction in GHG emissions from BAU conditions throughout the City. As stated above, the SJVAPCD requires a 29 percent reduction from BAU projected emissions for GHG impacts to be considered less than significant. As the Sustainability Action Plan would not achieve the SJVAPCD reduction requirement, the City's General Plan EIR (certified on February 1, 2011, SCH# 2008092006) determined that GHG emissions reductions would not achieve the SJVAPCD threshold of 29 percent. Impacts identified in the General Plan EIR were found to be significant and unavoidable and a Statement of Overriding Considerations was adopted. The CEQA analysis for the proposed Project tiers off of the General Plan EIR and incorporates it by reference. The proposed Project would be consistent with the growth that was anticipated in the General Plan and the Project would not result in greater impacts than those identified in the General Plan EIR. Additionally, the General Plan EIR indicated that all feasible mitigation measures for GHG emissions were included in the General Plan and Sustainability Action Plan. Therefore, no additional mitigation was provided in the General Plan EIR.

Because Project GHG emissions would not meet SJVAPCD criteria, impacts would be significant and unavoidable. However, as the General Plan EIR already determined that impacts associated with GHG

emissions were significant and unavoidable and a Statement of Overriding Considerations was adopted, a new Statement of Overriding Considerations is not required for the proposed Project.[19] .

Mitigation Measure: No feasible mitigation beyond measures included in the General Plan and Sustainability Action Plan are available.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

Consistency with Applicable GHG Plans, Policies, or Regulations

4.6-2 IMPLEMENTATION OF THE PROPOSED PROJECT COULD CONFLICT WITH AN APPLICABLE GREENHOUSE GAS REDUCTION PLAN, POLICY OR REGULATION.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

The City Sustainability Action Plan establishes a GHG emission reduction target that is based on SJVACPD threshold of a 29 percent reduction from BAU emissions. The City's target was also developed following a review of sustainability targets set by other entities, such as the Attorney General's Office, and have been refined iteratively and concurrently with the sustainability measures.

The City has developed a variety of policies and measures as part of the Sustainability Action Plan that are intended to meet applicable policies and regulations intended to reduce GHG emissions.

The Sustainability Action Plan includes 39 measures in the energy, transportation and land use, solid waste and water sectors that would reduce GHG emissions. The City General Plan also includes various policies that are applicable to the proposed Project. For example, the following describes the relevant policies that would reduce GHG emissions:

- The Community Character Element policies encourage the development of urban green spaces, promote the incorporation of pedestrian and bicycle access into site design, and discourage new strip commercial development.
- The Economic Development Element includes policies encouraging green businesses, local procurement of green products, and employment opportunities that reduce the need for vehicle trips.
- The Circulation Element provides policies to encourage the use of non-motorized transportation, transit, and low-emission vehicles; avoid disrupting sensitive environmental resources during transportation projects; and use sustainable materials in road construction and repair projects.
- The Open Space and Conservation Element incorporates resource conservation through construction and development practices, expanding the urban forest, and using water efficient landscaping techniques.
- The Public Facilities Element includes policies that require standards to reduce water and wastewater treatment demand in new development and redevelopment.

[19] AB 231 authorizes a lead agency to rely on a finding of overriding consideration made in a prior EIR for a later project if: (1) the lead agency determines that the later project's significant impacts on the environment are no greater than those identified in the prior EIR from which the project is tiered; (2) all applicable mitigation measures identified in the prior EIR are incorporated into the later project; and (3) the prior EIR was certified within three years of the approval of the later project.

- The Air Quality Element policies encourage green building standards for new development, encourage solar panels on new development, encourage use of light emitting diodes (LED) for outdoor lighting, and reduce GHG emissions from municipal operations and new development.

The General Plan and Sustainability Action Plan measures would increase the percentage of jobs in Tracy that are filled by residents of Tracy to 72 percent, an increase of 32 percent from the conditions in 2000.[20] According to the General Plan EIR, this increase in worker capture would significantly decrease commute trips for Tracy residents, a major component of Tracy's GHG emissions inventory. The Project proposes up to 466,000 square feet of commercial and office uses that would increase the percentage of jobs within the City, and reduce commute trips for Tracy residents. Based on the Project traffic analysis, the Project would reduce vehicle trips through internal reductions pass-by trip capture. Furthermore, the proposed Project would amend the I-205 Corridor Specific Plan to include portions of the City's Sustainability Action Plan Strategies E-2, T-2 and T-17 to reduce GHG emissions from Project operations.

In total, the General Plan and Sustainability Action Plan would reduce 2020 BAU GHG emissions by between 382,422 and 486,115 $MTCO_2eq$, which is approximately a 23 and 29 percent reduction from BAU levels. As indicated in the General Plan EIR, an additional reduction of between 21,086 and 124,779 $MTCO_2eq$ is needed in order to fully achieve a 29 percent reduction from BAU projected emissions. As part of the process to develop the General Plan and Sustainability Action Plan, many potential measures were considered. Some of the potential measures were not included in the Sustainability Action Plan due to the lack of data or examples and political and/or economic constraints. However, the City will continue to investigate and consider these measures. As the remaining reductions are needed in order to reach the GHG target, the General Plan EIR determined that GHG emissions reductions would not achieve the SJVAPCD threshold of 29 percent. However, the proposed Project would be consistent with Sustainability Action Plan and implement Strategies E-2, T-2 and T-17 to reduce energy consumption and reduce vehicle emissions. As the proposed Project would be consistent with the City's Sustainability Action Plan, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

4.6.4 ANALYSIS OF CUMULATIVE IMPACTS

4.6-3 GREENHOUSE GAS EMISSIONS RESULTING FROM DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT WOULD IMPACT GREENHOUSE GAS LEVELS ON A CUMULATIVELY CONSIDERABLE BASIS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Although the proposed Project would be consistent with the City's General Plan and Sustainability Action Plan and would incorporate relevant measures within the Sustainability Action Plan, Project GHG emissions would not meet SJVAPCD criteria and impacts would be significant and unavoidable. Project-generated GHGs in combination with GHG emissions from other known and reasonably foreseeable projects would result in a much greater amount of GHG emissions.

[20] City of Tracy, *General Plan Draft Recirculated Supplemental EIR*, February 1, 2011.

On December 30, 2009, the Natural Resources Agency adopted the *CEQA Guidelines* Amendments prepared by Office of Planning and Research, as directed by SB 97. On February 16, 2010, the Office of Administration Law approved the *CEQA Guidelines* Amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The *CEQA Guidelines* Amendments became effective on March 18, 2010. The Natural Resources Agency originally proposed to add subdivision (f) to Section 15130 to clarify that Sections 21083 and 21083.05 of the Public Resources Code do not require a detailed analysis of GHG emissions solely due to the emissions of other projects (i.e., State *CEQA Guidelines*, § 15130(a)(1); *Santa Monica Chamber of Commerce v. City of Santa Monica* (2002) 101 Cal.App.4th 786, 799). Rather, the proposed subdivision (f) would have provided that a detailed analysis is required when evidence shows that the incremental contribution of the project's GHG emissions is cumulatively considerable when added to other cumulative projects (i.e., *Communities for a Better Environment v. California Resources Agency* (2002), supra, 103 Cal.App.4th at 119-120). In essence, the proposed addition would be a restatement of law as applied to GHG emissions. Analysis of GHG emissions as a cumulative impact is consistent with case law arising under the National Environmental Policy Act (e.g., *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172, 1215-1217 [9th Cir. 2008]). Other portions of the *CEQA Guidelines* Amendments address how lead agencies may determine whether a project's emissions are cumulatively considerable (e.g., Proposed Sections 1506(h)(3) and 15064.4). However, public comments noted that the new subdivision merely restated the law, and was capable of misinterpretation. The Natural Resources Agency, therefore, determined that because other provisions of the *CEQA Guidelines* Amendments address the analysis of GHG emissions as a cumulative impact, and because the reasoning of those is fully explained in the Initial Statement of Reasons, subdivision (f) should not be added to the *CEQA Guidelines*. The deletion was reflected in the revisions that were made available for further public review and comment on October 23, 2009.

It is generally the case that an individual project of the size and nature of the proposed Project is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory.[21] GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.[22] However, because the Project's impacts associated with GHG emissions would be significant and unavoidable, the Project's cumulative-related GHG emissions would also be significant and unavoidable.

Mitigation Measure: No feasible mitigation beyond measures included in the General Plan and Sustainability Action Plan are available.

Level of Significance After Mitigation: Significant and Unavoidable Impact.

[21] California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, 2008.

[22] Ibid.

4.7 BIOLOGICAL RESOURCES

This section describes the existing biological resources at the Project site and the potential impacts to those resources that could result from the proposed Project. Included is a description of the affected environment for the following biological resources at the site:

- Vegetation and Habitats
- Wildlife Habitats and Common Wildlife Species
- Special-Status Species
- Sensitive and Regulated Habitats, Including Jurisdictional Wetlands and Waters

This section presents an overview of the existing literature on the biological resources at the Project site and results of reconnaissance surveys of the site. The biological resources information for the site was compiled from reviews of the available literature, site surveys, personal communication with state and federal resource agencies, and other appropriate information sources. A summary of information regarding the potential for occurrence of special-status plant and animal species on the site is included in Appendix C (Biological Resources Information).

4.7.1 ENVIRONMENTAL SETTING

Field surveys of the Project site were conducted by H. T. Harvey & Associates on August 12, 2010, to assess existing vegetative cover and wildlife habitat, potential for occurrence of special-status species, and general presence of sensitive biological resources, such as wetlands, sensitive natural communities, or mature native trees. As discussed in Chapter 3 (Project Description), the Project site consists of predominantly flat land that is actively in agricultural production for hay. There are three existing single-family residences and their associated accessory buildings, as well as a welding shop located along Grant Line Road. Ornamental landscaping surrounds the residences and welding shop.

The 43-acre Project site has been extensively altered as a result of agricultural and rural residential uses. These historical uses have resulted in disturbance of 100 percent of the site and have influenced the existing biological conditions at the site.

BIOTIC HABITATS AND COMMON PLANT AND WILDLIFE SPECIES

The following describes the major plant communities occurring within the Project site. In subdividing vegetation into major categories the overriding consideration was given to floristic composition.

The major plant communities discussed include agriculture (hay field), ruderal and developed. The general locations of these habitat types are shown on Figure 4.7-1 (Habitat Map), and the acreages associated with each vegetation community (based on the habitat mapping and site boundary depicted in Figure 4.7-1) are shown in Table 4.7-1 (Approximate Acreages of Plant Communities Onsite). The terms "plant community," "vegetation type," and "habitat" are used interchangeably within this section; all refer to assemblages of vegetation that are similar in species composition, growth form, and other habitat variables such as soil type or hydrologic conditions.

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Source: H.T. Harvey & Associates, 2011

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Habitat Map

Figure 4.7-1

Table 4.7-1
Approximate Acreages of Plant Communities Onsite

Vegetation Community Acreages	Area (acres)	Percentage of Site
Agriculture (Hay Field)	33	77%
Ruderal	6	14 %
Developed	4	9 %
Total	43	100 %
Source: H.T. Harvey & Associates		

Agriculture (Hay Field)

Vegetation

The predominant plant community on the Project site, occupying approximately 33 acres (77 percent) of the site, is active agriculture (hay field), found in the eastern portion of the site. On August 12, 2010, the hay had been recently harvested, and the eastern field disked. Plant species observed included wild oat (*Avena fatua*), smooth barley (*Hordeum murinum* ssp. *glaucum*) and rat-tail fescue (*Vulpia myuros*).

Wildlife

During the growing season, agricultural habitats within the Project site are of limited value to wildlife. California ground squirrel (*Otospermophilus beecheyi*) and valley pocket gopher (*Thomomys bottae*) may occur along the margins of fields. Coyote (*Canis latrans*) may occasionally forage in and traverse fields. Birds potentially occurring in agricultural habitats include horned lark (*Eremophila alpestris*), red-winged blackbird (*Agelaius phoeniceus*), mourning dove (*Zenaida macroura*), European starling (*Sturnus vulgaris*) and turkey vulture (*Cathartes aura*). Reptiles and amphibians expected to occur along the margins of agricultural habitats onsite include western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*) and western toad (*Anaxyrus boreas*). During the period between harvest and planting, the species restricted to the margins of the hay field (i.e., California ground squirrel, valley pocket gopher, western fence lizard, gopher snake and western toad) may re-colonize and occupy interior portions of the field.

Ruderal

Vegetation

Several patches of ruderal habitat are located on the Project site and comprise approximately six acres (14 percent) of the site. Ruderal communities are assemblages of plants that thrive in disturbed areas, and weedy, non-native annual or perennial forbs and grasses are typically the first species to colonize these sites following disturbance. Areas that have not experienced substantial disturbance (e.g., disking) for a number of years may develop into annual grasslands.

Ruderal habitat was observed in a horse pasture located to the west of the hay field. Within this pasture, black mustard (*Brassica nigra*) and tumbling saltweed (*Atriplex rosea*) were dominant, as well as the annual grasses found within the hay field (wild oat, smooth barley and rat-tail fescue). A more open area dominated by low-growing ruderal species such as dove weed (*Croton setigerus*), redstem stork's bill (*Erodium cicutarium*) and yellow-star thistle (*Centaurea solstitialis*) occurred to the west of the horse

pasture. Annual grasses and low-growing species such as rat-tail fescue, dove weed and yellow-star thistle were dominant within the ruderal habitat bounding the Project site to the north and south.

Wildlife

Ruderal habitats may provide cover and foraging areas for species such as the desert cottontail (*Sylvilagus audubonii*), California ground squirrel, California vole (*Microtus californicus*) and the coyote. Ruderal habitats provide important foraging areas for the American kestrel (*Falco sparverius*) and barn owl (*Tyto alba*), and may also provide nesting areas for the western kingbird (*Tyrannus verticalis*) and western meadowlark (*Sturnella neglecta*). Reptile species that may utilize ruderal habitats include the western fence lizard, gopher snake, common kingsnake (*Lampropeltis getula*), northern Pacific rattlesnake (*Crotalus oreganus*), western toad and Pacific chorus frog (*Pseudacris regilla*).

Developed

Vegetation

Approximately four acres (nine percent) of the site consists of developed areas, including roadways (paved and unpaved) and houses with the associated outbuildings, lawns and hardscape. Such areas often contain patches of ruderal vegetation as well as landscaped trees and shrubs.

Wildlife

Developed areas at the Project site provide limited habitat for wildlife. Common birds such as rock pigeons (*Columba livia*), American crows (*Corvus brachyrhynchus*), house sparrows (*Passer domesticus*), house finches (*Carpodacus mexicanus*) and European starlings may be attracted to buildings as perches or nest substrates. Amphibians and reptiles such as the western toad, western fence lizard and gopher snake may occur in these areas.

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES

Special-Status Species Regulations Overview

Federal and state endangered species legislation gives special status to several plant and animal species known to occur in the vicinity of the Project site. In addition, state resource agencies and professional organizations, whose lists are recognized by agencies when reviewing environmental documents, have identified as sensitive some species occurring in the vicinity of the Project site. Such species are referred to collectively as special-status species and include the following: plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered under the federal Endangered Species Act (ESA) or the California ESA; animals listed as "fully protected" under the California Fish and Game Code; animals designated as "Species of Special Concern" by the California Department of Fish and Game (CDFG); and plants listed as rare or endangered by the California Native Plant Society (CNPS).

Federal ESA provisions protect federally listed threatened and endangered species and their habitats from unlawful take. Under the federal ESA, "take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct." The U.S. Fish and Wildlife Service's (USFWS) regulations define harm to mean "an act which actually kills or injures wildlife." Such an act "may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering" (50 CFR §17.3). Activities that may result in "take" of individuals are regulated by the USFWS. The USFWS produced an updated list of candidate species November 10, 2010

(50 CFR Part 17). Candidate species are not afforded any legal protection under the federal ESA; however, candidate species typically receive special attention from federal and state agencies during the environmental review process.

Provisions of the California ESA protect state-listed threatened and endangered species. CDFG regulates activities that may result in "take" of listed individuals (i.e., "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"). Habitat degradation or modification is not expressly included in the definition of "take" under the California Fish and Game Code. Additionally, the California Fish and Game Code contains lists of vertebrate species designated as "fully protected" (California Fish & Game Code §§ 3511 [birds], 4700 [mammals], 5050 [reptiles and amphibians], 5515 [fish]). Such species may not be taken or possessed.

In addition to federal and state-listed species, CDFG has also produced a list of Species of Special Concern to serve as a "watch list." Species on this list are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Species of Special Concern may receive special attention during environmental review, but they do not have statutory protection. The USFWS also uses the label, Species of Concern, as an informal term that refers to those species that might be in need of concentrated conservation actions. Species of Concern receive no legal protection as a result of the designation, and the use of the term does not necessarily mean that the species will eventually be proposed for listing as a threatened or endangered species. However, most, if not all of these species are currently protected by state and federal laws.

Raptors (e.g., eagles, hawks and owls) and their nests are protected under both federal and state regulations. The federal Migratory Bird Treaty Act (MBTA) prohibits killing, possessing or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Birds of prey are protected in California under the Fish and Game Code. Section 3503.5 states it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this Code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by CDFG.

Vascular plants listed as rare or endangered by the CNPS, but which might not have designated status under state endangered species legislation, are defined as follows:

- List 1A Plants considered by the CNPS to be extinct in California
- List 1B Plants rare, threatened, or endangered in California and elsewhere
- List 2 Plants rare, threatened, or endangered in California, but more numerous elsewhere
- List 3 Plants about which we need more information – a review list
- List 4 Plants of limited distribution – a watch list

Special-Status Plant and Wildlife Species

On August 12, 2010, a reconnaissance-level survey was conducted for habitats capable of supporting special-status plant and wildlife species. Prior to the surveys, information concerning the known distribution of threatened, endangered, or other special-status plant and wildlife species with the potential to occur on the Project site was collected from several sources and reviewed. The sources included the CDFG's California Natural Diversity Database (CNDDB 2009) and information available through the

USFWS, CDFG, technical publications, Museum of Vertebrate Zoology and California Academy of Sciences. Other sources include the Jepson Manual (Hickman 1993), the Online CNPS Inventory of Rare and Endangered Plants (CNPS 2009) and CalFlora (2009).

A query of special-status plants and wildlife listed in the CNDDB was performed for the U.S. Geological Survey (USGS) Union Island topographical quadrangle in which the Project site occurs and for the eight surrounding quadrangles, which include Vernalis, Tracy, Midway, Lathrop, Clifton Court Forebay, Stockton West, Holt and Woodward Island. A similar nine-quadrangle query of the CNPS Inventory was also performed to generate a list of species occurring on CNPS lists 1 through 3 (CNPS 2009). A second query was performed for CNPS List 4 plant species occurring in San Joaquin County at elevations between "0-200 feet" in California valley and foothill grassland habitat. The habitat requirements of each special-status plant and wildlife species were compared to the existing habitat conditions at the Project site to determine the likelihood of occurrence for each species at the site (refer to Tables 4.7-2 and 4.7-3, respectively). Ten wildlife species and 40 plant species were rejected from consideration due to lack of suitable habitat characteristics. Expanded species descriptions are provided in Appendix C.

San Joaquin Multi-Species Habitat Conservation and Open Space Plan

The Project site lies within the coverage area of the *San Joaquin Multi-Species Habitat Conservation and Open Space Plan* (SJMSCP) (SJCG 2001). The key purpose of the SJMSCP is to provide a strategy for balancing the Open Space conservation with 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 ESA or the California ESA; 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.

Table 4.7-2
Special-Status and SJMSCP-Covered Animal Species with Potential Occurrence Onsite

Common Name	Scientific Name	Status	General Habitat Description	Presence/ Absence on the Site	Rationale
Federal or State Threatened, Endangered, and Proposed/Candidate Species					
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	FT	Elderberry trees in the Central Valley, particularly within and adjacent to riparian areas.	Absent	Elderberry host plants are absent from the Project site.

Common Name	Scientific Name	Status	General Habitat Description	Presence/ Absence on the Site	Rationale
California tiger salamander	*Ambystoma californiense*	FT, ST, CSSC	Breeds in ponds and seasonal pools, usually those ponding into or through May. Spends most of life in subterranean refugia such as small mammal burrows or soil cracks.	Absent	No suitable aquatic breeding habitat is present on the Project site, and no suitable aquatic habitat is present within potential dispersing distance from the Project site.
California red-legged frog	*Rana draytonii*	FT, CSSC	Breeds in ponds and pools, usually with long-duration ponding (*e.g.*, through July). Uses a variety of aquatic and wetland habitats for foraging, cover, and aquatic refugia. May disperse long distances over uplands, particularly during the wet season.	Absent	Although several records for the species exist within five miles of the Project site (CNDDB 2010), no suitable aquatic breeding/foraging habitat is present on the Project site, and no suitable aquatic habitat is present within potential dispersing distance from the Project site.
Alameda whipsnake	*Masticophis lateralis euryxanthus*	FT, ST	Inhabits chaparral and scrub habitats, especially those with rock outcrops. May also use adjacent oak woodland, grassland, riparian, and evergreen forest, usually within 500 feet of high-quality scrub.	Absent	The Project site is outside the known range of the species. The habitats on the Project site are also highly disturbed and degraded, and essential chaparral or scrub elements are not present on the Project site or adjacent properties.
Swainson's hawk	*Buteo swainsoni*	SE	Breeds in stands with few trees in juniper-sage flats, riparian areas, and oak savannah; forages in adjacent livestock pasture, grassland or grain fields.	Potentially Present	Swainson's hawks are relatively abundant in the Tracy area. Active nests occur within five miles of the Project site (CNDDB 2010), and the agricultural lands of the site are suitable for foraging by the species.

Common Name	Scientific Name	Status	General Habitat Description	Presence/ Absence on the Site	Rationale
San Joaquin kit fox	*Vulpes macrotis mutica*	FE, ST	Flat or gently sloping grasslands on the margins of the San Joaquin Valley and adjacent valleys.	Potentially Present	The CNDDB (2001) includes 31 records of the species within the nine-quadrangle area surrounding the Project site, including several within a five-mile radius of the site. Although kit fox are not expected to occupy the site on a regular basis, individuals may rarely and temporarily occupy the site during periods of dispersal.
California Species of Special Concern					
Western spadefoot	*Spea hammondii*	CSSC	Breeds in temporary rain pools; spends much of life in burrows or cracks in hard soil.	Absent	No records from the Project site or vicinity. Suitable aquatic breeding habitat is absent from the Project site and vicinity.
Silvery legless lizard	*Anniella pulchra pulchra*	CSSC	Occurs in sandy or loose, loamy, mesic soils in a variety of habitats.	Absent	Although two records for the species occur within the nine-quadrangle area surrounding the Project site (CNDDB 2010), suitable habitat is absent from the site due to the lack of friable mesic soils.
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	CSSC	Valley grasslands and saltbush scrub habitats; open, dry areas with few or no trees.	Absent	Although three records for the species occur within the nine-quadrangle area surrounding the Project site (CNDDB 2010), the species is absent due to the highly disturbed and degraded character of the habitats within the Project site and the surrounding vicinity.
Coast horned lizard	*Phrynosoma blainvillii*	CSSC	Friable soils in a variety of habitats including scrubland, grassland, forest, and woodland. Often found in sandy washes	Absent	Although 13 records for the species occur within the nine-quadrangle area surrounding the Project site (CNDDB 2010), suitable habitat is absent from the site due to the lack of friable soils and the disturbed and degraded character of the Project site.
Tricolored blackbird	*Agelaius tricolor*	CSSC (breeding)	Nests near freshwater in dense emergent vegetation, forages in a variety of open habitats.	Potentially Present	Since no freshwater emergent vegetation occurs on the Project site, this species may only occur as an occasional nonbreeder.
Burrowing owl	*Athene cunicularia*	CSSC	Grasslands and ruderal habitats where ground squirrel burrows or other burrows are present.	Present	During the wildlife reconnaissance survey conducted on August 12, 2010, two to three burrowing owls were observed within the agricultural habitat onsite and in the area between the fence line and railroad tracks along the southern boundary of the site.

Common Name	Scientific Name	Status	General Habitat Description	Presence/ Absence on the Site	Rationale
Northern harrier	*Circus cyaneus*	CSSC (breeding)	Nests in extensive marshes and wet fields, forages in marshes, grasslands, and ruderal habitats.	Potentially Present	Although suitable nesting habitat is absent, this wide-ranging species may forage over the agricultural and ruderal habitats of the Project site.
Loggerhead shrike	*Lanius ludovicianus*	CSSC (breeding)	Nests in tall shrubs and dense trees, forages in grasslands, marshes, and ruderal habitats.	Potentially Present	This species is likely to forage at the Project site and could nest in the ruderal or developed habitats of the Project site.
Pallid bat	*Antrozous pallidus*	CSSC	Forages over many habitats; roosts in buildings, large oaks or redwoods, rocky outcrops, and rocky crevices in mines and caves.	Potentially Present	The CNDDB (2010) contains two records of this species within the nine-quadrangle area surrounding the Project site. Trees with cavities and crevices, and crevices in buildings provide potential roost sites, and this species could possibly form maternity roosts on the site.
Townsend's big-eared bat	*Corynorhinus townsendii* ssp.	CSSC	Roosts primarily in caves, mines, attics, abandoned buildings and large trees with bowls such as found in burned old-growth redwoods. Forages over many habitats.	Potentially Present	The CNDDB (2010) contains one record of this species within the nine-quadrangle area surrounding the Project site. Townsend's big-eared bats may forage over the Project site and could roost in one or more of the onsite buildings, and this species could possibly form maternity roosts on the site.
Western mastiff bat	*Eumops perotis californicus*	CSSC	Inhabits many open, semi-arid to arid habitats, including woodlands, coastal scrub, grasslands, and chaparral; roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Potentially Present	The CNDDB (2010) contains one record of this species within the nine-quadrangle area surrounding the Project site. Western mastiff bats may forage over the Project site and could roost in one or more of the onsite buildings or trees, and this species could possibly form maternity roosts on the site.

Common Name	Scientific Name	Status	General Habitat Description	Presence/ Absence on the Site	Rationale
Western red bat	*Lasiurus blossevillii*	CSSC	Primarily roosts in mature riparian forest but also found in upland forests, woodlands, and orchards. Maternity roosts are primarily located below 3280 feet elevation in hardwood-dominated riparian habitat.	Potentially Present	Although the CNDDB (2010) contains no records of this species within the nine-quadrangle area surrounding the Project site, western red bats may forage over the Project site and could roost in one or more of the onsite buildings or trees. However, due to its preference for riparian habitats, this species is unlikely to form maternity roosts on the site.
California Fully Protected Species					
White-tailed Kite	*Elanus leucurus*	SP	Nests in tall shrubs and trees, forages in grasslands, marshes, and ruderal habitats.	Potentially Present	The CNDDB (2010) contains two records of this species within the nine-quadrangle area surrounding the Project site. This species may occasionally forage in open areas throughout the site and could possibly nest in the tall shrubs or trees onsite.
Other SJMSCP-Covered Species					
California horned lark	*Eremophila alpestris actia*	None	Short-grass prairie, annual grasslands, coastal plains, opens fields.	Potentially Present	California horned larks could forage in the mowed agricultural portion of the Project site and could possibly nest in the tall shrubs or trees onsite.
Western small-footed myotis	*Myotis ciliolabrum*	None	Roosts in caves, adits, cliffs, rock crevices, and buildings.	Potentially Present	Western small-footed myotis may forage over the Project site and could roost in one or more of the onsite buildings. This species could possibly form maternity roosts on the site.
Long-eared myotis	*Myotis evotis*	None	Roosts in caves, adits, trees, and snags.	Potentially Present	Long-eared myotis may forage over the Project site and could roost in one or more of the onsite buildings. This species could possibly form maternity roosts on the site.
Fringed myotis	*Myotis thysanodes*	None	Roosts in caves, adits, cliffs, rock crevices, and buildings.	Potentially Present	Fringed myotis may forage over the Project site and could roost in one or more of the onsite buildings. This species could possibly form maternity roosts on the site.
Long-legged myotis	*Myotis volans*	None	Roosts in caves, adits, cliffs, rock crevices, trees, snags, and buildings.	Potentially Present	Long-legged myotis may forage over the Project site and could roost in one or more of the onsite buildings. This species could possibly form maternity roosts on the site.

Common Name	Scientific Name	Status	General Habitat Description	Presence/ Absence on the Site	Rationale
Yuma myotis	*Myotis yumanensis*	None	Roosts in caves, adits, cliffs, rock crevices, structures, cisterns, bridges, trees, and snags.	Potentially Present	Yuma myotis may forage over the Project site and could roost in one or more of the onsite buildings. This species could possibly form maternity roosts on the site.

Special Status Species Code Designations:
FE = Federally listed Endangered
FT = Federally listed Threatened
SE = State listed Endangered
ST = State listed Threatened
SCE = State Candidate Endangered
CSSC = California Species of Special Concern
SP = California Fully Protected Species (California Fish and Game Code §§ 3511, 4700, 5050, and 5515)

Notes:
Present = Species is known to be present.
Potentially Present = general habitat is present and species may be present, but presence (at least currently) is not confirmed.
Absent = Species is considered absent due to absence of suitable habitat, range, or other considerations.

Table 4.7-3
Special-Status Plant Species with Potential Occurrence Onsite

Common Name	Scientific Name	Federal / State / CNPS Status	General Habitat Description	Presence/ Absence on the Site	Rationale
Federal or State Threatened, Endangered, and Proposed/Candidate Species					
Sharsmith's onion	*Allium sharsmithiae*	None/None/1B.3	Rocky, serpentine substrate in Chaparral and cismontane woodland from 1312 – 3937 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
large-flowered fiddleneck	*Amsinckia grandiflora*	FE/SE/1B.1	Cismontane woodland, valley and foothill grassland from 902-1804 feet.	Absent	There are no records within five miles of the site. No suitable habitat is present.

Common Name	Scientific Name	Federal / State / CNPS Status	General Habitat Description	Presence/ Absence on the Site	Rationale
California rock jasmine	*Androsace elongta ssp. acuta*	None/None/4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, and valley and foothill grassland from 492 – 3937 feet.	Absent	There are no records within five miles of the site. No suitable habitat is present.
alkali milk-vetch	*Astragalus tener* var. *tener*	None/None/1B.2	Alkali playa, vernal pools, valley and foothill grassland from 3 – 558 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Crownscale	*Atriplex coronata var. coronata*	None/None/4.2	Alkaline vernal pools in chenopod scrub and valley and foothill grassland from 3 - 1936 feet.	Absent	There are no records within five miles of the site. No suitable habitat is present.
San Joaquin spearscale	*Atriplex joaquiniana*	None/None/1B.2	Chenopod scrub, valley and foothill grassland, and alkali meadow from 3 – 2740 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Big tarplant	*Blepharizonia plumosa*	None/None/1B.1	Valley and foothill grassland from 49 - 1657 feet.	Absent	There is one CNDDB record within five miles of the site. Marginally suitable habitat present within railroad right of way. Unlikely to occur due to the disturbed history of the site. Not observed during 2010 surveys conducted when the species would be identifiable.

Common Name	Scientific Name	Federal / State / CNPS Status	General Habitat Description	Presence/ Absence on the Site	Rationale
round-leaved filaree	*California macrophylla* (=*Erodium macrophylla*)	None/None/1B.1	Cismontane woodland, valley and foothill grassland from 49 - 3937 feet.	Absent	There are 2 CNDDB records within five miles of the site. Neither record is recent. No suitable habitat is present.
chaparral harebell	*Campanula exigua*	None/None/1B.2	Chaparral (rocky) from 902-4101 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Bristly sedge	*Carex comosa*	None/None/2.1	Coastal prairie, marshes and swamps, and valley and foothill grassland from 0 – 2051 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Brown fox sedge	*Carex vulpinoidea*	None/None/2.2	Riparian woodland, marshes, and swamps from 82 – 3937 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Lemmon's jewel-flower	*Caulanthus coulteri var. lemmonii*	None/None/1B.2	Pinyon-juniper woodland, valley and foothill grassland from 262 – 4003 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Parry's red tarplant	*Centromadia parryi ssp. rudis*	None/None/4.2	Valley and foothill grassland on alkaline soils in vernal pools, vernally mesic sites, seeps, sometimes roadsides, from 0-328 feet.	Absent	There are no records within five miles of the site. Marginally suitable habitat present within railroad right of way. Unlikely to occur due to the disturbed history of the site. Not observed during 2010 surveys conducted when the species would be identifiable.

Common Name	Scientific Name	Federal / State / CNPS Status	General Habitat Description	Presence/ Absence on the Site	Rationale
Slough thistle	*Cirsium crassicaule*	None/None/1B.1	Chenopod scrub, marshes and swamps, and riparian scrub from 10 – 328 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Mt. Hamilton fountain thistle	*Cirsium fontinale var. campylon*	None/None/1B.2	Serpentine seeps in chaparral, cismontane woodland, and valley and foothill grassland from 328 – 2920 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Santa Clara red ribbons	*Clarkia concinna ssp. automixa*	None/None/4.3	Chaparral and cismontane woodland from 295 – 4921 feet.	Absent	There are no records within five miles of the site. No suitable habitat is present.
Small flowered morning glory	*Convolvulus simulans*	None/None/4.3	Clay and serpentine seeps in chaparral, coastal scrub, and valley and foothill grassland from 98 - 2297 feet.	Absent	There are no records within five miles of the site. No suitable habitat is present.
Palmate-bracted bird's beak	Cordylanthus palmatus	FE/SE/1B.2	Chenopod scrub, valley and foothill grassland on alkaline soils from 16 – 509 feet.	Absent	There are no CNDDB records within five miles of the site, and the most recent nearby record of the species was from 1881. Believed extirpated in San Joaquin County. No suitable habitat is present.
Mt. Hamilton coreopsis	*Coreopsis hamiltonii*	None/None/1B.2	Rocky cismontane woodland from 1804 – 4265 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.

Common Name	Scientific Name	Federal / State / CNPS Status	General Habitat Description	Presence/ Absence on the Site	Rationale
Hospital Canyon larkspur	*Delphinium californicum* ssp. *interius*	None/None/1B.2	Chaparral (openings) and cismontane woodland on mesic soils from 755-3593 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Gypsum loving larkspur	*Delphinium gypsophilum ssp. gypsophilum*	None/None/4.2	Chenopod scrub, cismontane woodland, and valley and foothill grassland from 328 – 2707 feet.	Absent	There are no records within five miles of the site, nor in San Joaquin County. No suitable habitat is present.
Recurved larkspur	*Delphinium recurvatum*	None/None/1B.2	Subalkaline soils in annual grassland, saltbush scrub, oak woodland, vernal pools 10 – 2461 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Tracy's eriastrum	*Eriastrum tracyi*	None/SR/1B.2	Chaparral and cismontane woodland from 1033 – 3199 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Delta-button celery	*Eryngium racemosum*	None/SE/1B.1	Riparian scrub 10 -99 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Diamond-petaled California poppy	*Eschscholzia rhombipetala*	None/None/1B.1	Grassland, chenopod scrub, on clay soils where grass cover is sparse 0-3199.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.

Common Name	Scientific Name	Federal / State / CNPS Status	General Habitat Description	Presence/ Absence on the Site	Rationale
Talus fritillary	*Fritillaria falcata*	None/None/1B.2	Serpentinite (often talus) substrate in chaparral, cismontane woodland, and lower montane coniferous forest from 984 – 5003 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Diablo's helianthella	*Helianthella castanea*	None/None/1B.2	Broad-leaved upland forest, cismontane woodland, chaparral, coastal scrub, valley and foothill grassland from 82-3773 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Hogwallow starfish	*Hesperevax caulescens*	None/None/4.2	Valley and foothill grasslands on clay soils.	Absent	There are no records within five miles of the site. No suitable habitat is present.
Napa western flax	*Hesperolinon sp. nov. "serpentinum"*	None/None/1B.1	Serpentinite substrate in chaparral from 164 – 2625 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Wooly rose-mallow	*Hibiscus lasiocarpos var. occidentalis*	None/None/1B.2	Freshwater marshes and swamps from 0 – 394 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Delta tule pea	*Lathyrus jepsonii* var. *jepsonii*	None/None/1B.2	Freshwater and brackish marshes often found with cattails 0-13 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.

Common Name	Scientific Name	Federal / State / CNPS Status	General Habitat Description	Presence/ Absence on the Site	Rationale
Serpentine linanthus	*Leptosiphon ambiguus*	None/None/4.2	Usually serpentinite in cismontane woodland, coastal scrub, and valley and foothill grassland from 394 – 3707 feet.	Absent	There are no records within five miles of the site. No suitable habitat is present.
Mason's lilaeopsis	*Lilaeopsis masonii*	None/SR/1B.1	Freshwater and brackish marshes, riparian scrub from 0-33 feet.	Absent	There are five CNDDB records within five miles of the site. No suitable habitat is present.
Delta mudwort	*Limosella subulata*	None/None/2.1	Marshes and swamps from 0-30 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Showy Madia	*Madia radiata*	None/None/1B.1	Valley and foothill grassland, oak woodland 82 - 2953 feet.	Absent	There are no CNDDB records within five miles of the site. Marginally suitable habitat present within railroad right of way. Unlikely to occur due to the disturbed history of the site. Not observed during 2010 surveys conducted when the species would be identifiable.
Hall's bush mallow	*Malacothamnus hallii*	None/None/1B.2	Chaparral, some populations on serpentine from 33 - 1804 feet.	Absent	There is one CNDDB record within five miles of the site. No suitable habitat is present.
Mt. Diablo phacelia	*Phacelia phacelioides*	None/None/1B.2	Chaparral and cismontane woodland on rocky soils from 1640 - 4494 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Sanford's arrowhead	*Sagittaria sanfordii*	None/None/1B.2	Shallow freshwater marshes and swamps from 0 – 2133 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.

Common Name	Scientific Name	Federal / State / CNPS Status	General Habitat Description	Presence/ Absence on the Site	Rationale
Marsh skullcap	*Scutellaria galericuluata*	None/None/2.2	Lower montane coniferous forest, mesic meadows and seeps, and marshes and swamps from 0 – 6899 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
rayless ragwort	Senecio aphanactis	None/None/2.2	Cismontane woodland, coastal scrub, and dry alkali flats from 66-1886 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
Suisun marsh aster	*Symphyotrichum lentus* (= *Aster lentus*)	None/None/1B.2	Marshes and swamps (freshwater and brackish) 0-10 feet.	Absent	There is one CNDDB record within five miles of the site. No suitable habitat is present.
Wright's trichocoronis	*Trochocoronis wrightii var. wrightii*	None/None/2.1	Meadows and seeps, marshes and swamps, riparian forests, and alkaline vernal pools from 16 – 1427 feet.	Absent	There are no CNDDB records within five miles of the site. No suitable habitat is present.
caper-fruited tropidocarpum	*Tropidocarpum capparideum*	None/None/1B.1	Valley and foothill grasslands (alkaline hills); 3 -3281 feet.	Absent	There are multiple CNDDB records within five miles of the site. Most recently documented occurrence is from 1962. Believed extirpated from San Joaquin County. No suitable habitat is present.

Common Name	Scientific Name	Federal / State / CNPS Status	General Habitat Description	Presence/ Absence on the Site	Rationale

Special Status Species Code Designations:
FE = Federally listed Endangered
FT = Federally listed Threatened
SE = State listed Endangered
ST = State listed Threatened
SCE = State Candidate Endangered
SR = State Rare
CNPS Status Code Designations:
1A = Plants considered by the CNPS to be extinct in California
1B = Plants rare, threatened, or endangered in California and elsewhere
2 = Plants rare, threatened, or endangered in California, but more numerous elsewhere
3 = Plants about which we need more information – a review list
4 = Plants of limited distribution – a watch list
The CNPS threat rank is an extension added onto the species CNPS status, and designates the level of endangerment by a 1 to 3 ranking, with 0.1 being the most endangered, and 0.3 being the least endangered.

Special-Status Animals

On August 12, 2010, a reconnaissance-level survey was conducted for habitats capable of supporting special-status animal species. Of the 24 different animals considered for potential occurrence during the preparation of this EIR, habitat for many of these species is entirely absent. For the remainder (i.e., 16 species) of the special-status animals, suitable habitat is present on the Project site and along the railroad right-of-way. Critical habitat proposals and designations were also reviewed. This review confirmed that no proposed or designated critical habitat for special-status animals is present onsite.

Special-Status Plants

On August 12, 2010, a reconnaissance-level survey was conducted for habitats capable of supporting special-status plant species. Of the 43 different plants considered for potential occurrence during the preparation of this EIR, habitat for many of these species is entirely absent. For the remainder (i.e., three species) of the special-status plants, only ruderal habitat (containing many colonizing California annual grassland components) is present onsite along the railroad right-of-way. Special-status plants for which suitable habitat was determined to be present represent those species that were considered possible to colonize and persist in the available habitat.

Based on the negative findings of the survey, none of the special-status plants for which suitable habitat was determined to be onsite are considered present. The germination and growth of these species would have received sufficient rainfall amount and distribution during 2010 for these species to be observed onsite, thus, increasing the confidence of the absence determination.

Because the Project site supports only marginally suitable habitat for three species, and if present those species would have been identifiable during the survey, but were not observed, protocol-level surveys were not deemed necessary. Based on existing conditions present on the Project site, all of the special-status plants considered for occurrence are determined to be absent. Critical habitat proposals and designations were also reviewed. This review confirmed that no proposed or designated critical habitat for special-status plants is present onsite.

4.7.2 REGULATORY SETTING

FEDERAL FRAMEWORK

U.S. Army Corps of Engineers

Areas meeting the regulatory definition of "Waters of the United States" (jurisdictional waters) are subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE) under provisions of Section 404 of the Clean Water Act (CWA 1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as "Waters of the United States," tributaries of waters otherwise defined as "Waters of the United States," the territorial seas, and wetlands (termed Special Aquatic Sites) adjacent to "Waters of the United States" (33 CFR, Part 328, Section 328.3). Wetlands on non-agricultural lands are identified using the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) in combination with the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2006).

Construction activities within jurisdictional waters are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the CWA. The State Water Resources Control Board is the state agency (together with the Regional Water Quality Control Boards) charged with implementing water quality certification in California.

Field surveys for potential jurisdictional waters on the Project site were conducted in accordance with USACE regulations and guidelines on August 12, 2010. No potentially jurisdictional waters were identified on the Project site.

STATE FRAMEWORK

California Department of Fish and Game

CDFG potentially extends the definition of stream to include "intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams (USGS), and watercourses with subsurface flows." Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). Such areas onsite were determined using methodology described in A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607 (CDFG 1994).

Activities that result in the diversion or obstruction of the natural flow of a stream; substantially change its bed, channel, or bank; or utilize any materials (including vegetation) from the streambed, may require that the Project applicant enter into a Streambed Alteration Agreement with CDFG.

Field surveys were conducted on August 12, 2010 within the Project site for streams and other waterways potentially under the regulatory jurisdiction of CDFG. No potentially jurisdictional waters were identified on the Project site.

4.7.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

The California Environmental Quality Act (CEQA) defines "significant effect on the environment" as "a substantial, or potentially substantial, adverse change in the environment." Under *CEQA Guidelines* Section 15065, a project's effects on biotic resources are deemed significant where the project would:

- 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

In addition, according to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant impact to biological resources if it would:

- 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 CDFG or USFWS
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means
- Interfere substantially with the movement of any native resident or migratory 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
- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Communities Conservation Plan (NCCP), or other approved local, regional, or State HCP
- Have a substantial adverse effect on state protected wetlands as defined by Section 404 of the CWA or the Porter-Cologne Act through direct removal, filling, hydrological interruption, or other means

METHODOLOGY AND ASSUMPTIONS ABOUT POTENTIAL BIOLOGICAL RESOURCES IMPACTS

This analysis is based on an extensive review of the existing literature regarding the biological resources of the site, supplemented by field observations by the biologists preparing this chapter. Impacts to biological resources are analyzed in the context of the existing information available for the site, which includes historical information, relevant studies and reports, and information collected during onsite field visits.

Following are the assumptions that have been applied in the analysis of potential biological resources impacts. The assumptions are based on information gathered during the planning process. This information has been incorporated, as appropriate, to avoid or minimize their environmental consequences.

- Any habitat used to mitigate impacts to less than significant levels for CEQA compliance purposes will be preserved via a conservation easement or other instrument adequate to ensure preservation of the site in perpetuity. An endowment, with an amount capable of producing sufficient interest to fund annual monitoring and management measures, will be established to ensure that the desired functions and values for which the mitigation site is intended are maintained in perpetuity.
- Habitat mitigation provided to compensate for impacts to one biological resource can count toward compensation for impacts to other biological resources as long as construction, enhancement, or management of the habitat benefits all such resources. For example, habitat that is enhanced and preserved as mitigation for impacts to San Joaquin kit fox (*Vulpes macrotis mutica*) habitat can serve as mitigation for impacts to burrowing owl (*Athene cunicularia*) habitat.

POTENTIAL IMPACTS AND MITIGATION MEASURES

The Project site lies within the coverage area of the SJMSCP (SJCOG 2001) and the proposed Project would not conflict with the SJMSCP or Biological Opinion. It is anticipated that the Project applicant would participate in the SJMSCP and implement mitigation measures therein to minimize take of special-status species.

4.7-1 CONSTRUCTION IN THE PROJECT AREA COULD DISTURB NESTING SWAINSON'S HAWK AND RESULT IN THE LOSS OF FORAGING HABITAT.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Swainson's hawks nest in areas such as riparian woodlands, roadside trees, trees along field borders, and the edges of remnant oak woodlands. Swainson's hawks have been documented to nest within one mile of the Project site (CNDDB 2010), and suitable foraging habitat for Swainson's hawk exists on the Project site. Impacts resulting from construction activities (noise, human activity) could result in disrupted foraging activities, incidental loss of fertile eggs or nestlings, or nest abandonment. CDFG recommends a buffer zone of 0.5 miles around active Swainson's hawk nests (CDFG 1994). These buffer zones may be adjusted as appropriate in consultation with a qualified ornithologist and CDFG.

During the reconnaissance survey of the Project site and vicinity conducted by H. T. Harvey & Associates on August 12, 2010, three potentially active Swainson's hawk nests were observed within a five-mile radius of the Project site near the intersection of Lammers Ferry and Schulte Roads (CNDDB occurrence no. 1215 [2003]; two nests observed) and on Van Sosten Road west of the Project site (CNDDB occurrence no. 1228 [2003]; one nest observed). The former occurrence is within five miles of the site, and the latter occurrence is within one mile of the site. Many additional nests have been documented within five miles of the Project site (CNDDB 2010), and it is a virtual certainty that an active Swainson's hawk nest exists within a five-mile radius and possible that such a nest exists within a one-mile radius. These nests may continue to be active in the future.

The Project area includes 33 acres of agricultural (hay field) habitat, which may serve as foraging habitat for Swainson's hawks. Swainson's hawks may also forage in the ruderal habitat. Loss of these habitats would represent a significant impact as active Swainson's hawk nests are present within 10 miles (the average maximum distance from nests that pairs are known to forage; CDFG 1994) of the Project site. Implementation of Mitigation Measure 4.7-1, requiring compensation for the loss of habitat and its

conversion to urban use, would fulfill the mitigation requirements of the SJMSCP and reduce impacts to less than significant.

Mitigation Measure:

4.7-1 Prior to the issuance of grading or building permits, the Project applicant shall either pay the appropriate fee or dedicate, as conservation easements or fee title, habitat lands as prescribed by the San Joaquin County Council of Governments to compensate for the loss of habitat and its conversion to urban use.

Level of Significance After Mitigation: Less Than Significant Impact.

4.7-2 THE PROPOSED PROJECT COULD DISTURB NESTING BURROWING OWLS AND RESULT IN THE LOSS OF OCCUPIED BURROWING OWL HABITAT.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Burrowing owl, a CDFG Species of Special Concern, has been observed within the Project site. Impacts as a result of approval of the proposed Project may contribute to the injury and mortality of or loss of habitat for burrowing owl. Disturbance of habitat during the breeding season could also result in the displacement of breeding birds and the abandonment of active nests. Ground disturbance from Project construction could contribute to the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Occupied burrowing owl habitat in the proposed Project occurs in the active agriculture (hay field) habitat lands. The loss of this occupied burrowing owl habitat through Project development would result in the displacement of owls and a potentially significant impact. Implementation of Mitigation Measure 4.7-1, requiring compensation for the loss of habitat and its conversion to urban use, would fulfill the mitigation requirements of the SJMSCP and reduce impacts to less than significant.

Mitigation Measure: Implement Mitigation Measure 4.7-1.

Level of Significance After Mitigation: Less Than Significant Impact.

4.7-3 THE PROPOSED PROJECT COULD DISTURB NESTING WHITE-TAILED KITES AND RESULT IN INJURY OR MORTALITY TO INDIVIDUALS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

White-tailed kite, a state fully protected species, may forage and possibly nest at the Project site. The species nests in tall shrubs and trees. Impacts resulting from construction activities (noise, human activity) could result in disrupted foraging activities, incidental loss of fertile eggs or nestlings, or nest abandonment and possible direct injury and/or mortality to individual birds as a result of nesting tree removal during Project construction. Implementation of Mitigation Measure 4.7-1, requiring compensation for the loss of habitat and its conversion to urban use, would fulfill the mitigation requirements of the SJMSCP and reduce impacts to less than significant.

Mitigation Measure: Implement Mitigation Measure 4.7-1.

Level of Significance After Mitigation: Less Than Significant Impact.

4.7-4 THE PROPOSED PROJECT COULD DISTURB NESTING LOGGERHEAD SHRIKES AND RESULT IN INJURY OR MORTALITY TO INDIVIDUALS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Loggerhead shrike, a CDFG Species of Special Concern, may forage and possibly nest at the Project site. This species nests in tall shrubs and dense trees. Impacts resulting from construction activities (noise, human activity) could result in disrupted foraging activities, incidental loss of fertile eggs or nestlings, or nest abandonment and possible direct injury and/or mortality to individual birds as a result of nesting tree and shrub removal during Project construction. Implementation of Mitigation Measure 4.7-1, requiring compensation for the loss of habitat and its conversion to urban use, would fulfill the mitigation requirements of the SJMSCP and reduce impacts to less than significant.

Mitigation Measure: Implement Mitigation Measure 4.7-1.

Level of Significance After Mitigation: Less Than Significant Impact.

4.7-5 THE PROPOSED PROJECT COULD DISTURB NESTING CALIFORNIA HORNED LARKS AND RESULT IN INJURY OR MORTALITY TO INDIVIDUALS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Although the California horned lark currently has no special-status designation, it is a covered species under the SJMSCP. Horned larks may forage and possibly nest at the Project site. This is a ground-nesting species that could nest in areas of bare ground or short grasses on the Project site. Impacts resulting from construction activities (noise, human activity) could result in disrupted foraging activities, incidental loss of fertile eggs or nestlings, or nest abandonment and possible direct injury and/or mortality to individual birds as a result ground disturbances that could destroy nests during Project construction. Implementation of Mitigation Measure 4.7-1, requiring compensation for the loss of habitat and its conversion to urban use, would fulfill the mitigation requirements of the SJMSCP and reduce impacts to less than significant.

Mitigation Measure: Implement Mitigation Measure 4.7-1.

Level of Significance After Mitigation: Less Than Significant Impact.

4.7-6 THE PROPOSED PROJECT COULD RESULT IN INJURY OR MORTALITY TO, AND LOSS OF FORAGING AND REFUGE HABITAT FOR, SAN JOAQUIN KIT FOXES

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Currently, the population of San Joaquin kit fox in the Tracy region is generally restricted to the rural lands in and around the lower foothills west of the Interstate 580 corridor (H. Clark personal communication). Therefore, kit fox are not expected to occupy the Project site on a constant or regular basis. Nonetheless, individuals (typically juveniles) may rarely and temporarily occupy the site during periods of dispersal, particularly during years of high reproductive output. If individual dispersing kit foxes were present onsite during Project construction, these individuals could be killed or injured by motorized vehicle strikes or by den destruction caused by construction equipment during ground-disturbing activities. Although San Joaquin kit fox would only forage or seek refuge on the lands of the Project site on a rare and intermittent basis, Project development would result in the loss of the active agriculture (hay field) habitat lands of the Project site, comprising potential foraging and refuge habitat for San Joaquin kit fox. Implementation of Mitigation Measure 4.7-1, requiring compensation for the loss of habitat and its conversion to urban use, would fulfill the mitigation requirements of the SJMSCP and reduce impacts to less than significant.

Mitigation Measure: Implement Mitigation Measure 4.7-1.

Level of Significance After Mitigation: Less Than Significant Impact.

4.7-7 THE PROPOSED PROJECT COULD RESULT IN THE INJURY OR MORTALITY AND THE DISTURBANCE OF MATERNITY COLONIES OF PALLID BAT AND SJMSCP-COVERED BAT SPECIES

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Larger trees and buildings on the Project site may be utilized as roost sites by the pallid bat (which is not covered under the SJMSCP) and nine species of bats covered under the SJMSCP: (greater) western mastiff bat, (western) small-footed myotis, long-eared myotis, fringed myotis, long-legged myotis, (western) red bat, Yuma myotis, pale big-eared bat, and Townsend's big-eared bat. Additionally, buildings, particularly those that receive little or no use by humans, could be utilized as maternity roosts by any of the nine above-mentioned species. Removal of occupied trees and demolition of occupied buildings could result in the injury or mortality of individuals and potentially the loss of one or more maternity colonies. Pallid bats are not covered under the SJMSCP and impacts to this species resulting from the Project would be potentially significant. Implementation of Mitigation Measure 4.7-7 would reduce impacts to this species to less than significant.

Mitigation Measure:

> 4.7-7 The Project applicant shall implement take minimization measures, adopted in the SJMSCP to avoid take of other bat species, to minimize take of pallid bats during the breeding season (April – September).

Level of Significance After Mitigation: Less Than Significant Impact.

4.7-8 GRADING AND CONSTRUCTION WITHIN THE PROJECT AREA WOULD RESULT IN TEMPORARY NOISE IMPACTS TO NEARBY SWAINSON'S HAWKS AND BURROWING OWLS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Construction activities have the potential to cause short-term noise impacts to nearby foraging and nesting Swainson's hawks and burrowing owls within and adjacent to the Project site. Vacant land near the Project site south of Von Sosten Road and west of Byron Road could be utilized by Swainson's hawks for foraging and by burrowing owls for foraging, breeding and refuge. Noise produced by construction equipment varies substantially depending upon the type of equipment being used and its operation and maintenance. Construction noise is generally of relatively short duration, lasting from a few days to a period of months. Noise impacts associated with site preparation are generally the noisiest and have the shortest duration. Activities associated with site preparation include earthmoving and compacting of soils. High noise levels are created from the operation of heavy-duty trucks, backhoes, and front-end loaders. Implementation of Mitigation Measure 4.7-1, requiring compensation for the loss of habitat and its conversion to urban use, would fulfill the mitigation requirements of the SJMSCP and reduce impacts to less than significant.

Mitigation Measure: Implement Mitigation Measure 4.7-1.

Level of Significance After Mitigation: Less Than Significant Impact.

4.7-9 THE PROPOSED PROJECT WOULD RESULT IN IMPACTS TO REGIONALLY ABUNDANT VEGETATION TYPES, INCLUDING AGRICULTURE (HAY FIELD), RUDERAL HABITAT, AND DEVELOPED AREAS, AND THE COMMON WILDLIFE SPECIES ASSOCIATED WITH THESE HABITATS.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

Hay fields, ruderal and developed habitats predominately support common plant and wildlife species. These habitats are locally common, the plant species present within these areas are regionally common, and the majority of biotic resources associated with these habitats would continue to be abundant following the implementation of the Project. The loss of these habitats would have only a small effect on the regional availability of these vegetation types. As a result, for most wildlife species associated with these common habitats, the loss of these habitats would result in a very slight reduction in regional populations. As a result, the Project's impacts do not meet the CEQA standard of having a substantial adverse effect on these habitats or associated species' populations, and the loss of these habitats and associated species is considered less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

4.7-10 THE PROPOSED PROJECT COULD RESULT IN A POTENTIAL IMPACT FROM THE SPREAD OR INTRODUCTION OF INVASIVE PLANT AND ANIMAL SPECIES.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

A reconnaissance level survey completed August 12, 2010 by H.T. Harvey & Associates identified stands of several species of noxious weeds, specifically black mustard (*Brassica nigra*), ripgut brome (*Bromus diandrus*), yellow starthistle (*Centaruea solstitialis*) and Russian thistle (*Salsola tragus*). All of these species are on the watch list of the California Invasive Plant Council and could potentially spread on the site.

In addition, urban development on the site could introduce invasive plant species to nearby natural and developed habitats. These plants may compete with agricultural crops, or displace native plants, thus reducing habitat quality for native wildlife and disrupting existing natural communities. However, due to the current disturbed nature of the Project site, the surrounding land use (primarily developed and agriculture), and the future use of the Project site (developed), no significant impact to the distribution and/or abundance of invasive plant species is likely.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

4.7.4 ANALYSIS OF CUMULATIVE IMPACTS

Construction of the Project would permanently alter foraging habitat for Swainson's hawks, burrowing owls, white-tailed kites, loggerhead shrikes, horned larks, a variety of bat species, and San Joaquin kit fox. Past and foreseeable future actions within the Tracy area include, but are not limited to, mining, grazing, agriculture, off-road vehicle use, and the construction of housing, commercial, industrial, and infrastructure projects and the cumulative impacts of these actions on these species are potentially significant. The SJMSCP was developed to address both the project and cumulative impacts to biological resources. Participation in the SJMSCP and would implement the applicable biological mitigation measures to ensure minimization of take for the species addressed in this EIR thereby reducing cumulative impacts to less than significant.

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4.8 CULTURAL RESOURCES

This section evaluates potential impacts on cultural resources that could result from implementation of the proposed Project. The description of the affected environment, analysis of impacts, and recommended mitigation is based on information contained within the City of Tracy General Plan Draft Environmental Impact Report (City General Plan Draft EIR) (October 2005), the Wal-Mart Expansion Draft EIR (October 2005) and the Holly Sugar Sports Park Draft EIR (August 2009). In addition, a records search was performed by the Central California Information Center for the Project site (July 28, 2010) and a *Cultural Resource Assessment of the Filios/Dobler Annexation, Tracy, San Joaquin County, California*, was prepared by Peak & Associates, Inc. (December 2010). Both these documents are provided in Appendix D (Cultural Resources Data).

4.8.1 ENVIRONMENTAL SETTING

PREHISTORIC SETTING

The prehistory of an area is generally described in terms of archaeological patterns. A pattern is a general mode of life characterized archaeologically by technology, particular artifacts, economic systems, trade, burial practices, and other aspects of culture. The predominant archaeological patterns in the Project vicinity are the Windmiller, Berkeley and Augustine patterns. The Windmiller Pattern or Early Horizon extended from 3,000 to 1,000 B.C., the Berkeley Pattern or Middle Horizon from 1,000 B.C. to A.D. 500 and the Augustine Pattern or Late Horizon from A.D. 500 to the historic period. The Windmiller Pattern primarily encompasses the lower Central Valley and Delta regions. Windmiller Pattern artifacts include large projectile points. Faunal remains imply a hunting economy that included both large and small mammals. Berkeley Pattern sites are found in diverse environmental settings, with riverine settings being prevalent. Berkeley Pattern sites contain numerous shaped milling and grinding stone implements for food preparation, suggesting greater dependence on acorns. Projectile points become progressively more regularized in shape and somewhat smaller through time. Intensive fishing, hunting and harvesting of acorns and small hard seeds typify the Augustine Pattern period, along with a general increase in population and settlements, a more regularized exchange system, and an increase in ceremonialism. Spanish explorers and the mission lifestyle they created disrupted people living in this pattern in the latter half of the eighteenth century.

ETHNOGRAPHIC SETTING

At the time of European-American contact, the Yokuts occupied much of the San Joaquin Valley (Valley) in an approximately 250-square-mile area that roughly spanned from the Sacramento-San Joaquin Delta in the north to the foot of the Tehachapis in the south and to the foothills on the east and west sides of the Valley. The Yokuts are commonly categorized into three cultural-geographical types: the Northern Yokuts, Southern Yokuts and Foothill Yokuts. The Northern Yokuts occupied the present day Tracy area and were politically organized by tribelet, which consisted of one or more villages and camps within a designated territory generally defined by geographic features. The Chulamni (or Cholbumne) tribelet occupied the area to the north of what is now Tracy and the Hoyumne tribelet occupied the area to the southeast. Yokuts villages were located on natural rises in close proximity to watercourses. Chulamni tribelet villages were located along the banks of the Old River and San Joaquin River near present day Tracy, and along creeks in the Diablo Range. Pescadero was the largest Chulamni village site near Tracy. The Yokuts were hunter-gatherers and relied on fishing, hunting, catching fowl and collecting plant resources for subsistence.

Unfortunately, very little is known of the Yokuts due to their rapid disappearance after the arrival of the Spanish in central California in the 1760s. The Spanish relocated many Yokuts to missions and forced them to convert to Catholicism and work for the missions. European diseases took the lives of many Native Americans and by 1846 an estimated 75 percent of the native population in the Valley had been killed by these diseases. The discovery of gold in California in 1848 drew thousands of miners and settlers to the Sierra foothills and led to widespread killing and the virtual destruction of Native American culture. Yokuts were driven from their homes along watercourses and finally left the area all together for the mountains shortly after the expansion of Valley agriculture.

HISTORIC SETTING

The first significant European settlement of California began along the coast during the Spanish Period (1769 to 1821). However, it was not until after the 1848 discovery of gold at Sutter's Mill in Coloma that the Tracy area was first settled. In 1869, the Central Pacific Railroad completed a rail line that went from Sacramento south to Stockton and then west over the Altamont Pass, connecting with ferry service to San Francisco. Soon after the rail line was completed, the town of Lathrop Junction was established along the route west of present day Tracy to provide support services for the railroad and its employees. The Railroad also built a coaling station at the eastern base of the Altamont Pass to support the rail line and the community of Ellis developed around it. In 1878, a second rail line was constructed to the north to avoid the route over the Altamont Pass and Tracy was founded along this new line on September 8, 1878. The town was named after Lathrop J. Tracy, an Ohio railroad man and grain merchant. Due to the increased efficiency of this second line, the railroad quickly discontinued the coaling station at Ellis and moved its employees and their families to Lathrop and Tracy. Tracy continued to prosper due to the railroad, which relocated its headquarters there in 1894. Tracy was incorporated in 1910 and experienced continued growth and prosperity due to the establishment of the first irrigation district in 1915, which stimulated agricultural development in the area.

While railroad operations began to decline in Tracy in the 1950s, agriculture has continued to remain a strong part of the Tracy economy and significant factor behind its growth and development. Several other factors have also influenced Tracy's continued growth and development, including the following:

- The creation of the Sharpe Army Depot during World War II, which provided thousands of jobs and brought new residents to the area.
- The creation of the Lawrence Livermore National Laboratory southwest of Tracy, which created nearby jobs and brought new residents to the area.
- Soaring home values in the Bay Area, which created the demand for lower cost housing in Tracy.
- Tracy's strategic location near major interstates and its relatively inexpensive land values, which encouraged the development of large shipping and distribution facilities.

PALEONTOLOGICAL SETTING

Paleontological resources are the fossilized remains of plants and animals. The age and abundance of fossils depends on the location, topographic setting and particular geologic formation in which they are found. There are several rock formations in the Tracy Planning Area that could potentially contain fossils. According to the University of California, Museum of Paleontology, fossil sites within the Tracy Planning Area are mainly located south of Interstate 205 (I-205), along the Interstate 580 (I-580) corridor and in the southwest portion of the Tracy Planning Area, on the slopes of the Diablo Range foothills.

KNOWN CULTURAL RESOURCES

Central California Information Center Records Search

The CCIC of the California Historical Resources Information System at California State University, Stanislaus conducted a records search of the Project area (refer to Appendix D) on July 28, 2010. The results of the records search indicate that no previously identified prehistoric period cultural resources are known within or adjacent to the Project site. One historic resource was recorded within the Project site (P-39-000471). The resource consists of a segment of an irrigation ditch that extends outside the Project site boundaries. It was evaluated as ineligible for the California Register of Historic Resources (California Register or CRHR). Another irrigation ditch was recorded adjacent to, but not within the Project site (P-39-000470). In addition, the Union Pacific Railroad (UPRR) line bordering the Project site to the south, as well as the segment of the power transmission line traversing through the Project site, have been recorded elsewhere in San Joaquin County as historic resources, but the specific segments adjacent to and within the Project site have not been formally recorded. There have been two previous cultural resource investigations conducted within the center of the Project site; however, a small area around the existing structures at the western end of the Project site and a strip of land at the eastern end that encompasses approximately less than a third of the Project site were not surveyed.

The CCIC concluded that the Project site has a "moderate-high" sensitivity for the possible discovery of historical resources, due to the presence of the segment of the historic irrigation ditch within the site boundaries, as well as the presence of other historical features outside, but near the Project site. Given that portions of the Project site have never been surveyed for cultural resources and the Project site has a "moderate-high" sensitivity for the possible discovery of historical resources, the CCIC recommended that a qualified archaeologist survey the unsurveyed portions of the Project site prior to Project implementation or issuance of any discretionary permit. Based on this recommendation, the City retained Peak & Associates, Inc. (Peak & Associates) to conduct a cultural resource assessment of the Project site. The results of this assessment are summarized though out this section.

Sacred Lands Review

Peak & Associates contacted the Native American Heritage Commission for a Sacred Lands review. According to the Commission, there is no record of any Sacred Lands within the Project site.

Field Survey Results

Peak & Associates conducted a field reconnaissance of the entire Project site during November 2010. They did not observe any evidence of prehistoric activity within the Project site. In addition, none of the recorded resources observed within the Project area have any known association with historically important persons or events in regional history. Nor was there any indication of artifact deposits that would return significant information through archeological means. Since the area has been plowed for many years, it is assumed any buried deposit would have some artifacts brought to the surface during agricultural activities, but none were observed.

The segment of the power transmission line traversing through the Project site was recorded and given the same identifying number as the other recorded portions (P-39-004374). The resource consists of two parallel transmission lines with towers spaced at intervals of approximately 760 feet. The two sets of transmission lines are about 50 feet apart. The original transmission lines were built in 1931 by Pacific Gas and Electric (PG&E) as part of the Tiger Creek project located along the Mokelumne River to transport hydroelectric-generated power to the Bay Area. The segment on the Project site is

approximately 650 feet long and crosses through the site at a bearing of about 30 degrees. Two segments of P-39-004374 were previously recorded offsite and in both cases the resource was evaluated as ineligible for inclusion in the California Register of Historic Resources (CRHR) due to the fact that they were not the earliest such electrical transmission lines in the state and did not display original or unusual engineering elements in the design or construction of the lattice towers. According to Peak & Associates, the portion of the line within the Project site does not differ from the other two recorded segments. Peak & Associates concluded that the segment within the Project site is not eligible for inclusion in the CRHR, as it displays the same characteristics of the other two segments recorded offsite.

Peak & Associates observed that the previously recorded irrigation ditch (P-39-000471) was currently in the same condition as previously described. Peak & Associates concur with the previous evaluation of P-39-000471 that concluded the resource is not eligible for the CRHR, given that the ditch is small; has no unusual features; is an extremely common type of resource; and has been seriously modified.

Given , that the residence located in the far eastern portion of the Project site at 13588 Grant Line Road is more than 45 years old, it was formally recorded as a historic resource (PA-10-G41). According to Peak & Associates, PA-10-G41 is an example of a Minimal Traditional residence, the most common sort of small rural residence constructed in the post-WWI years. It is entirely plain in appearance and has a major addition (the wing between the original house and the garage) that is not in a conforming style. It is in no way unusual and it is not a particularly good example of the style. Thus, Peak & Associates determined that it is not eligible for inclusion in the CRHR.

In addition, the residence, detached garage and large commercial structure located in the far western portion of the Project site at 14010 Grant Line Road were also formally recorded as historic resources (PA-10-G42) because they are more than 45 years old. According to Peak & Associates, the commercial structure is not old enough to qualify as a historic property and, in addition, it is a very common type of construction. The garage is detached from the residence and seems to have been re-used as a garage after being a general storage structure. According to Peak & Associates, the only structure that might be eligible for the CRHR is the residence. However, the house was constructed toward the end of the period of greatest popularity of the Craftsman Bungalow, which was the dominant style of small rural residence of its day, and is not a particularly good representation of the characteristics of this architectural style. It has no unusual design features or construction details that make it stand out. As a result, Peak & Associates determined that it is not eligible for inclusion in the CRHR.

4.8.2 REGULATORY SETTING

FEDERAL FRAMEWORK

National Historic Preservation Act of 1966 (16 U.S.C. 470)

The National Historic Preservation Act (NHPA) is the most comprehensive national policy on historic preservation. The NHPA, which is designed to encourage the preservation and wise use of our historic resources, establishes the policy of the U.S. Government regarding historic preservation. The NHPA defines historic preservation to include "the protection, rehabilitation, restoration and reconstruction of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, or culture." Section 106 of the NHPA requires federal agencies to "take into account" the effect of their undertakings (projects) on historical and archaeological resources. Undertakings are projects funded or permitted by a federal agency. The National Register of Historic Places (National Register or NRHP), which is maintained by the National Park Service (NPS), is a compilation of cultural

resources that have been nominated and accepted as having historic, architectural, archaeological, engineering, or cultural significance, at the national, state or local level.

Paleontological Resources Preservation Act

The federal Paleontological Resources Preservation Act of 2002 codifies the generally accepted practice of limited vertebrate fossil collection and limited collection of other rare and scientifically significant fossils by qualified researchers. Researchers must obtain a permit from the appropriate state or federal agency and agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers.

STATE FRAMEWORK

California Register of Historical Resources

The California Register is a statewide program that is similar in scope to the National Register. It consists of a compilation of cultural resources that are significant within the context of local, California, or national history, but not necessarily history germane to other states. All resources listed in or formally determined eligible for the National Register are also eligible for the California Register, as are properties designated under municipal or county ordinances.

California Environmental Quality Act (CEQA)

The CEQA Statute and Guidelines include procedures for identifying, analyzing, and disclosing potential adverse impacts on historical resources, which include all cultural resources (archaeological sites and historical buildings, structures and objects) listed in or formally determined eligible for the National Register, the California Register, or listed in a local (county or municipal) register of historical resources. CEQA requires agencies that finance or approve public or private projects to assess the effects of the project on historical resources. If a project results in significant effects on important cultural resources, alternative plans or mitigation measures must be considered. However, only significant cultural resources (historical resources, as defined by CEQA) need to be addressed.

California Public Resources Code

California Public Resources Code Section 5097.5 prohibits excavation or removal of any "vertebrate paleontological site, or any other archaeological, paleontological, or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands." Public lands are defined to include lands owned by or under the jurisdiction of the state or any city, county, district, authority or public corporation, or any agency thereof. Section 5097.5 also states that any unauthorized disturbance or removal of archaeological, historical, or paleontological materials or sites located on public lands is a misdemeanor. Section 30244 requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands.

Section 5097.98 of the California Public Resources Code prohibits obtaining or possessing Native American artifacts or human remains taken from a grave or cairn, and sets penalties for such acts. Additionally, Section 5097.98, as amended by Assembly Bill 2641, states:

(a) Whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended

from the deceased Native American. The descendents may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The descendents shall complete their inspection and make their recommendation within 24 hours of their notification by the Native American Heritage Commission. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

(b) Whenever the commission is unable to identify a descendent, or the descendent identified fails to make a recommendation, or the landowner or his or her authorized representative rejects the recommendation of the descendent and the mediation provided for in subdivision (k) of Section 5097.94 fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall re-inter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.

4.8.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant impact on cultural resources if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5
- Cause a substantial adverse change in the significance of an archaeological resource, pursuant to §15064.5
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature
- Disturb any human remains, including those interred outside of formal cemeteries

POTENTIAL IMPACTS AND MITIGATION MEASURES

Cultural Resources

4.8-1 ***PROJECT IMPLEMENTATION MAY CAUSE A SUBSTANTIAL ADVERSE CHANGE TO AN UNKNOWN HISTORICAL OR ARCHAEOLOGICAL RESOURCE, OR RESULT IN THE DAMAGE OR DESTRUCTION OF UNKNOWN PALEONTOLOGICAL RESOURCES OR HUMAN REMAINS.***

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

As noted previously under the discussion of Known Cultural Resources, Peak & Associates did not observe any evidence of prehistoric activity within the Project site, nor was there any indication of artifact deposits within the Project site that would return significant information through archeological means. In addition, none of the recorded historical resources within the Project site were determined to be eligible as significant historic resources using CRHR criteria. Furthermore, there is no record of any Sacred Lands

within the Project site. Thus, site grading and construction activities are not anticipated to result in impacts on cultural, historical, archaeological or paleontological resources. However, there is a possibility that potentially significant unrecorded cultural resources, including human remains, are present beneath the ground surface, and that such resources could be exposed during the construction of the Project. Any ground disturbing activities have the potential to damage or destroy potentially significant unknown cultural resources. Implementation of Mitigation Measure 4.7-1, identified below, would reduce potential impacts on significant unknown cultural resources to less than significant.

Mitigation Measure:

4.8-1 If subsurface deposits believed to be cultural or human in origin are discovered during the construction of the Project, then all work shall halt within a 200-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeologist, shall be retained at the Project sponsor's expense to evaluate the significance of the find. 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 National Register of Historic Places or the California Register of Historical Resources.

If a potentially-eligible resource is encountered, then the archaeologist, lead agency and Project sponsor shall arrange for either: 1) total avoidance of the resource, if possible; or 2) test excavations to evaluate eligibility and, if eligible, data recovery as mitigation. The determination shall be formally documented in writing and submitted to the lead agency and filed with the North Central Information Center as verification that the provisions in this mitigation measure have been met.

If human remains of any kind are found during construction activities, all activities shall cease immediately and the San Joaquin County Coroner be notified as required by state law (Section 7050.5 of the Health and Safety Code). If the coroner determines the remains to be of Native American origin, he or she shall notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the most likely descendant(s) (MLD) to be consulted regarding treatment and/or reburial of the remains (Section 5097.98 of the Public Resources Code). If an MLD cannot be identified, or the MLD fails to make a recommendation regarding the treatment of the remains within 48 hours after gaining access to the remains, the City shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. Work can continue once the MLD's recommendations have been implemented or the remains have been reburied if no agreement can be reached with the MLD (Section 5097.98 of the Public Resources Code).

If any fossils are encountered, there shall be no further disturbance of the area surrounding this find until the materials have been evaluated by a qualified paleontologist, and appropriate treatment measures have been identified.

Level of Significance After Mitigation: Less Than Significant Impact.

4.8.4 ANALYSIS OF CUMULATIVE IMPACTS

The analysis of cumulative cultural resource impacts considers the larger context of future development of the City as envisioned by the City of Tracy General Plan (City General Plan) and relies upon the projections of the City General Plan and City General Plan EIR. Cumulative cultural resource impacts would result from incremental changes that damage or destroy cultural resources within the Tracy area.

The proposed project has the potential to damage or destroy potentially significant unknown cultural resources because their subsurface presence cannot be conclusively ruled out. Mitigation Measure 4.7-1 would help to protect potentially significant unknown cultural resources from damage, destruction, or information loss as a result of Project construction. Therefore, implementation of this mitigation measure, along with implementation of similar mitigation measures by other projects in City's Planning Area and western San Joaquin County, would prevent the Project from cumulatively contributing to the damage or destruction of cultural resources.

4.9 GEOLOGY AND SOILS

This section describes the geologic and seismic conditions within the Project site and evaluates the potential geologic hazards, soils, and/or seismic impacts that could result from implementation of the proposed Project. This section summarizes information from the City of Tracy General Plan (City General Plan); the City of Tracy General Plan EIR (City General Plan EIR); the Filios/Dobler General Plan and Annexation EIR (1999); and the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS).

4.9.1 ENVIRONMENTAL SETTING

REGIONAL GEOLOGY

The Project site is located within the Great Valley geomorphic province, which is bordered on the east by the Sierra Nevada Range geomorphic province and on the west by the Coast Ranges geomorphic province. The Great Valley geomorphic province is characterized by a thick layer of Cenozoic non-marine sedimentary rock overlain by alluvial deposits. Four geomorphic sub-categories characterize the Great Valley geomorphic province: dissected uplands, low alluvial planes and fans, river floodplains and channels, and overflow lands and lake bottoms.

SITE GEOLOGY

The Project site is located immediately adjacent to the northwestern boundary of the City of Tracy (City) within the river floodplains and channels geomorphic sub-category, which consists of alluvial and fluvial deposits that are generally from 100 to 2,000 feet deep. The topography of this area is relatively level, sloping slightly to the north. Near surface sediments in the Project vicinity consist of Holocene to Pleistocene-age alluvial fan and terrace deposits composed of unconsolidated silts, clays, sands and gravels derived from the Coast Ranges geomorphic province. The topography of the Project site is relatively flat, with onsite slopes of approximately 0.5 percent. Elevations on the Project site vary from 27 feet above mean sea level (msl) to 22 feet above msl.

SITE SOILS

According to NRCS, there is only one soil type underlying the Project site: Capay clay. The NRCS identifies the Capay series as consisting of very deep, moderately well drained soils that formed in moderately fine and fine textured alluvium derived from mostly sandstone and shale. Capay soils are on alluvial fans, alluvial flats, interfan basins and basin rims. Slopes are zero to two percent. Capay clay has a high shrink/swell potential and low strength.

GEOLOGIC HAZARDS

Faults and Seismicity

There are numerous faults within and nearby the City Planning Area. Faults within the City Planning Area include the Tracy-Stockton, Black Butte, Midway, San Joaquin, Carnegie/Corral Hollow and Elk Ravine faults. As shown in Figure 4.8-1 (Regional Earthquake Faults), the Tracy-Stockton fault passes underneath the north/central portion of the City Planning Area and the five other faults are located in the southwestern portion of the Planning Area. Faults outside of, but close to the City Planning Area, include the San Andreas, Calaveras, Hayward and Concord-Green Valley faults. These faults have historically been the source of earthquakes felt in the City.

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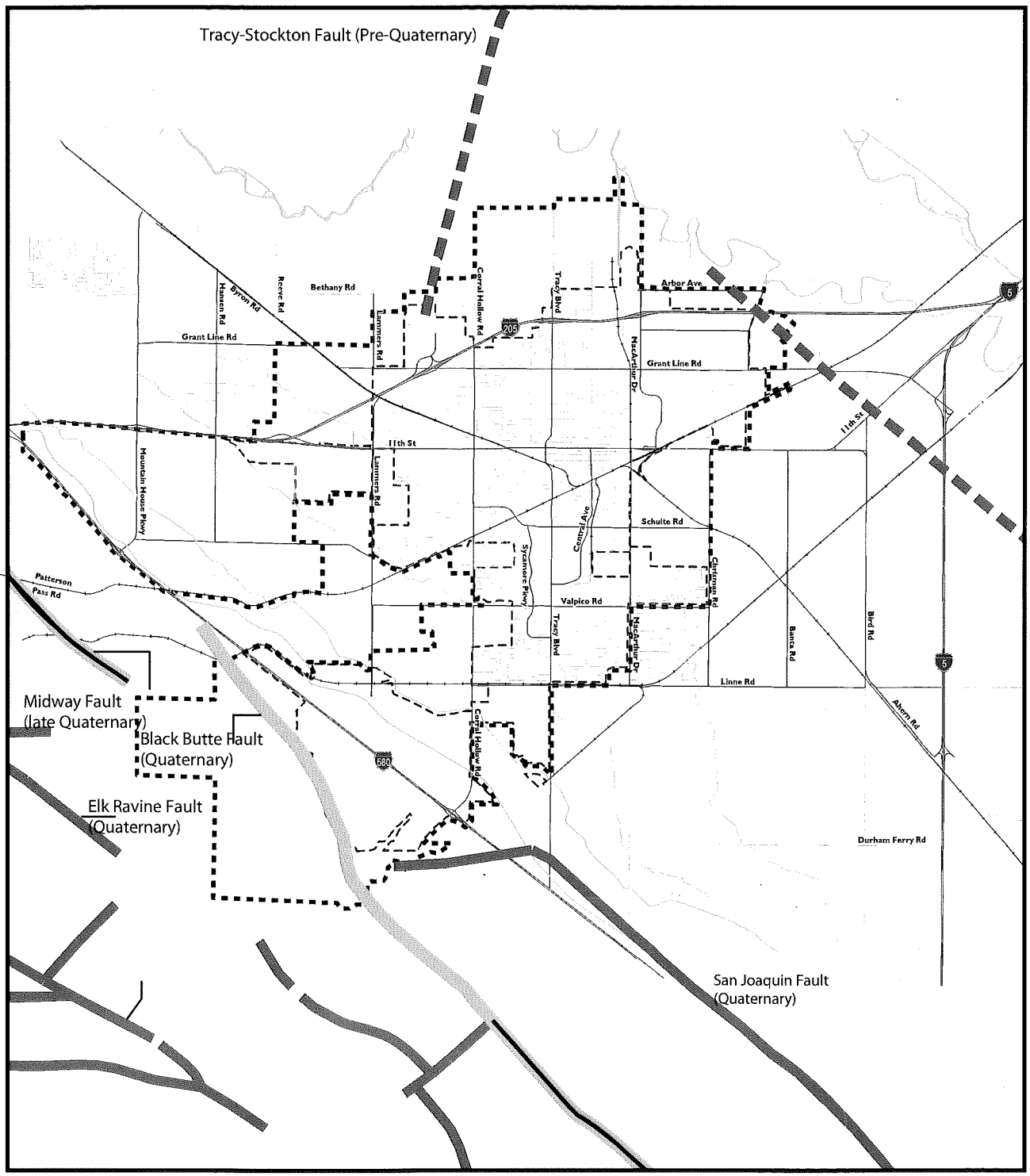

RBF CONSULTING

Filios/Dobler Annexation EIR

Regional Earthquake Faults

Figure 4.9-1

A fault that shows evidence of activity within the last 11,000 years is considered "active," while one showing evidence of activity from about 11,000 to 1.6 million years ago is considered potentially active, and one showing evidence of activity older than 1.6 million years is usually classified as "inactive." Of the faults within the City Planning Area, four are considered active (Black Butte, Midway, San Joaquin and Carnegie/Corral Hollow) and two (Tracy-Stockton and Elk Ravine) are considered inactive. Special Publication 42 (Interim Revision 2007), "*Fault Rupture Hazard Zones in California*," prepared by the California Department of Conservation, California Geological Survey, describes active faults and fault zones pursuant to the Alquist-Priolo Earthquake Fault Zoning Act. According to Special Publication 42, neither the City nor San Joaquin County is within or near an Alquist-Priolo special studies zone.[1] Since earthquakes cause ground rupture along fault lines and no known active faults pass through the Project site, it is unlikely that the Project site would be subject to ground rupture. However, it is more likely that the Project site would experience moderate ground shaking caused by earthquakes occurring along off-site faults.

The greatest potential for significant ground shaking in Tracy is believed to be from earthquakes occurring on the Calaveras, Hayward, San Andreas or Concord-Green Valley faults. Possible recent movement on the Carnegie/Corral Hollow fault could mean that there is potential for significant ground shaking from an earthquake on this fault as well, while the potential for activity on the Black Butte and Midway faults is uncertain at this time. Nonetheless, seismic activity in the City has generally been limited to low to moderate ground motions with the largest recorded earthquake in the City measured at 3.9 on the Richter scale. Earthquakes may cause cracking of concrete slabs, building walls and pavement at the site.

Liquefaction

Liquefaction is the transformation of soil from a solid state to a temporary fluid-like state. It occurs when certain types of soil material loose their strength, usually as a result of strong ground shaking caused by an earthquake or other cyclic loading (force). Soil most susceptible to liquefaction is generally clean, loose, uniformly graded and sandy, although gravelly soil, silts and some clay-rich soil may be prone to liquefaction under certain conditions. In general, the younger and looser the soil and the higher the water table, the more susceptible the soil is to liquefaction. Surficial (near surface) soils in the northern portion of the City Planning Area, including the Project site, have low liquefaction potential. However, the underlying soils are relatively clean, water-saturated sands and peats, which have high liquefaction potential.

Landslides

Due to the relatively flat nature of the Project site and lack of steep slopes or hillsides, the potential for landslides is low.

Subsidence

Subsidence is the downward movement of the ground surface with limited or no horizontal movement. It can be caused by a variety of factors, such as groundwater, gas or oil extraction or seismic shaking. The City extracts groundwater and monitors for subsidence. According to the City's groundwater conditions report dated January 23, 2009 (*Summary of Groundwater Conditions: November 2007 through November 2008*), City groundwater extractions are not creating any subsidence.

[1] The Alquist-Priolo Earthquake Fault Zoning Act was passed following the 1971 San Fernando Earthquake and only addresses the hazards associated with surface fault ruptures. Ground shaking, liquefaction, seismically induced slope instability and other seismic hazards are not addressed.

Expansive Soils

Expansive soils swell substantially when wet and shrink when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. The Capay clay soil found on the Project site has a high shrink/swell potential.

Soil Erosion

Soil erosion occurs when soil is loosened and is transported elsewhere, typically by wind or water. It is a natural process and in general, soil is roughly removed as fast as it formed. However, certain activities, such as vegetation removal due to construction or as a result of a fire, can result in "accelerated" soil erosion, or the loss of soil at a much faster rate that it is formed Construction activities associated with the proposed Project have the potential to increase the chances of erosion.

4.9.2 REGULATORY SETTING

STATE FRAMEWORK

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to prevent the construction of buildings used for human occupancy on the surface trace of active faults (those having evidence of surface displacement within about the last 11,000 years). It requires the State Geologist to delineate earthquake fault zones around the surface traces of active faults and publish maps showing these zones.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides or other ground failure, and from other hazards caused by earthquakes. The Act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation of the site must be conducted and appropriate mitigation measures incorporated into the project design.

California Building Code

The California Building Code (CBC) is contained in the California Code of Regulations (CCR), Title 24, Part 2. Title 24 is assigned to the California Building Standards Commission, which is responsible for coordinating building standards. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all building and structures within its jurisdiction. The CBC is based on the International Building Code. The 2007 CBC is based on the 2006 International Building Code (IBC) published by the International Code Conference. In addition, the CBC contains necessary California amendments which are based on the American Society of Civil Engineers (ASCE) Minimum Design Standards 7-05. ASCE 7-05 provides requirements for general structural design and includes ways for determining earthquake loads as well as other loads (flood, snow, wind, etc.) for inclusion into building codes. On March 15, 2011, the City adopted the CBC by reference as part of its Municipal Code pursuant to Government Code Section 50022.2 (Tracy Municipal Code Section 9.04.030).

LOCAL FRAMEWORK

City of Tracy General Plan

The City General Plan includes a goal, an objective and several policies to reduce the risks to the community from earthquakes and other geologic hazards. In particular, geotechnical reports are required for development in areas where potentially serious geologic risks exist, and all construction in the City is required to conform to the CBC and Tracy Municipal Code.

4.9.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant impact on geology and soils if it would:

- Expose people or structures to potentially 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, strong seismic ground shaking, seismic-related ground failure (including liquefaction), or landslides
- Result in substantial soil erosion or the loss of topsoil
- Be located on a geologic formation unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslides, lateral spreading, subsidence, liquefaction , or collapse
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater

AREAS OF NO PROJECT IMPACT

The following impacts are either not applicable to the Project or not reasonably foreseeable:

- Expose people or structures to potentially 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

As there are no identified faults running through the Project site, the risk of ground rupture is virtually non-existent.

- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater

The proposed Project would connect to the municipal sewer system and would not require the construction of septic tanks or an alternative wastewater disposal system.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Seismic Hazards

4.9-1 THE PROPOSED PROJECT COULD EXPOSE PEOPLE OR STRUCTURES TO POTENTIALLY SUBSTANTIAL ADVERSE EFFECTS INCLUDING THE RISK OF LOSS, INJURY, OR DEATH AS A RESULT OF SEISMIC-RELATED GROUND SHAKING OR LIQUEFACTION.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

Implementation of the proposed Project would involve construction of structures in a seismically active area. While surface rupture from a known fault is unlikely to occur, the Project site would likely experience moderate ground shaking as a result of earthquakes occurring on off-site faults. Earthquake related ground shaking may cause concrete slabs, building walls and pavement at the Project site to crack, and potentially threatening the integrity of structures and safety of people present at the time of the earthquakes. Moreover, ground motions have the potential to initiate secondary events such as liquefaction, which could also threaten the integrity of structures and safety of people present on the Project site.

To minimize potential damage to proposed structures caused by groundshaking, the proposed Project would comply with the latest CBC standards, as required by the City of Tracy Municipal Code 9.04.030. Implementation of CBC standards, which include provisions for seismic building design, would ensure that impacts associated with groundshaking would be less than significant. Building new structures for human use would increase the number of people exposed to local and regional seismic hazards. Seismic hazards are a significant risk for most property in California. Implementation of the requirements of the CBC and the Tracy General Plan would ensure that impacts on humans associated with seismic hazards would be less than significant.

Mitigation Measure: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

Soil Erosion

4.9-2 THE PROPOSED PROJECT COULD RESULT IN SUBSTANTIAL SOIL EROSION OR THE LOSS OF TOPSOIL.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Future development of the Project site would involve vegetation removal, grading and potentially earth excavation, which would expose soils and increase the potential for soil erosion from wind or stormwater runoff. Erosion can be controlled using standard construction practices, based on a site-specific geotechnical study that is required by Mitigation Measure 4.9-2. In addition, adherence to applicable state and local regulations, codes and requirements, as identified in Section 4.11 (Hydrology and Water

Quality) would ensure that impacts associated with construction related soil erosion would be less than significant.

Mitigation Measure:

4.9-2 In accordance with CBC (Title 24, Part 2) Section 18O4A.3 and A.5, and the requirements of Tracy General Plan Objective SA-1.1, Policy 1, liquefaction and seismic settlement potential shall be addressed in design-level geotechnical engineering investigations. The Development and Engineering Services Department shall ensure that all the pertinent sections of the CBC shall be adhered to in the construction of buildings on the Project site, and that all appropriate measures are implemented in order to reduce the risk of liquefaction and seismic settlement prior to the issuance of a building permit.

Level of Significance After Mitigation: Less Than Significant Impact.

Unstable Soils

4.9-3 ***THE PROPOSED PROJECT COULD BE LOCATED ON A GEOLOGIC FORMATION UNIT OR SOIL THAT IS UNSTABLE, OR THAT WOULD BECOME UNSTABLE AS A RESULT OF CONSTRUCTION AND POTENTIALLY RESULT IN LIQUEFACTION.***

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

The surficial soil on the Project site would not typically be subject to liquefaction, but underlying soils have high liquefaction potential. Liquefaction can result in loss of support for building foundations, structural failures due to lateral spreading, and settlement of affected soils after an earthquake. Development on the Project site would require the preparation of a site-specific design-level geotechnical investigation pursuant to Mitigation Measure 4.9-2. Implementation of the recommendations contained within a site-specific design-level geotechnical investigation would ensure that impacts associated with liquefaction would be less than significant.

Mitigation Measure: Implement Mitigation Measure 4.9-2.

Level of Significance After Mitigation: Less Than Significant Impact.

Expansive Soils

4.8-4 ***THE PROPOSED PROJECT COULD BE LOCATED ON EXPANSIVE SOIL, AS DEFINED IN TABLE 18-1-B OF THE CALIFORNIA BUILDING CODE (1994), CREATING SUBSTANTIAL RISKS TO LIFE OR PROPERTY***

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

The Project site is underlain by clayey, expansive soil that has a high shrink/swell potential. Expansion and contraction of soils could create severe structural damage and endanger occupants and visitors to site structures. As identified by Mitigation Measure 4.9-2, future development would require a design-level

geotechnical investigation, which would address the presence of expansive soil. Recommendations for mitigation of expansive soil would be based on the findings of the investigation.

Mitigation Measure: Implement Mitigation Measure 4.9-2.

Level of Significance After Mitigation: Less Than Significant Impact.

4.9.4 ANALYSIS OF CUMULATIVE IMPACTS

The analysis of cumulative geology and soils impacts considers the larger context of future development of the City as envisioned by the City General Plan and relies upon the projections of the General Plan and General Plan EIR. As described above, future development would not result in significant effects associated with seismic or soil hazards with adherence to applicable state and local regulations, codes and requirements and the implementation of Mitigation Measure 4.8-1. Other individual development projects would be reviewed for seismic safety and would be required to comply with local regulations, codes and requirements. Moreover, none of the cumulative projects would reasonably be expected to be affected by the exact same seismic or soil impacts as the proposed Project due to the unique characteristics of each project and site. Therefore, the proposed Project's geology and soils impacts would not be cumulatively considerable.

4.10 HAZARDS AND HAZARDOUS MATERIALS

This section identifies the potential for the proposed Project to expose the public to hazards, hazardous materials, or risk of upset that may be related to existing conditions or new hazards created as a result of the Project. Information in this section is based on an Existing Hazardous Materials Conditions Assessment (EHMCA) prepared by RBF Consulting for the proposed Project, dated November 2, 2010 (refer to Appendix E).

For this EIR, the term "hazardous material" is defined as 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 in to the workplace or environment. "Hazardous waste," a subset of hazardous material, is material that is to be discharged, discarded, recycled, and/or reprocessed.

4.10.1 ENVIRONMENTAL SETTING

The Project site is situated within the urban fringe of the City of Tracy (City) and encompasses five Assessor's Parcel Numbers (APNs) (APNs 209-27-010, -011, -026, -030 and -031), which total approximately 43 acres. Onsite topography ranges from approximately 22 to 27 feet above mean sea level (msl), and generally slopes to the north. The majority of the Project site consists of predominantly flat land that is actively used for the agricultural production of hay. The Project site includes three residential structures, four shed structures (including a garage structure), two barn structures, and agricultural uses. Residential structures consist of wood and stucco materials, while three of the shed structures are wooden, and the barn structures and garage consist of metal materials.

EXISTING HAZARDOUS MATERIALS CONCERNS

Current Onsite Uses

The Project site consists of three residential structures, four shed structures (including a garage structure), two barn structures, and agricultural uses. Residential structures consist of wood and stucco materials, while three of the shed structures are wooden, and the barn structures and garage consist of metal materials.

Asbestos-Containing Materials

Asbestos is a strong, incombustible and corrosion-resistant material that was used in many commercial products beginning before the 1940s and continuing until the early 1970s. If inhaled, asbestos fibers can result in serious health problems. Asbestos-containing materials (ACMs) are building materials containing more than one percent asbestos. The majority of the existing structures present within the Project site were built prior to 1978. Therefore, the potential for ACMs to be found in the Project site is considered likely.

Lead-Based Paints

Until 1978, when the U.S. Consumer Product Safety Commission (CPSC) phased out the sale and distribution of residential paint containing lead, many homes were treated with paint containing some amount of lead. It is estimated that over 80 percent of all housing built prior to 1978 contains some lead-based paint (LBP). The mere presence of lead in paint may not cause a material to be considered hazardous. In fact, if in good condition (no flaking or peeling), most intact LBP is not considered to be a

hazardous material. In poor condition, LBPs can create a potential health hazard for building occupants, especially children. The majority of the existing structures present within the Project site were built prior to 1978. Therefore, the potential for LBPs to be found within the boundaries of the Project site is considered likely.

Agricultural Uses

The Project site is currently utilized for agricultural purposes. According to the EHMCA, no evidence to suggest the presence of an environmental condition at the Project site as a result of current agricultural practices was apparent. Also, no storage areas or other agricultural equipment was observed onsite. Based on the EHMCA, no hazardous materials contamination has likely resulted at the Project site due to current agricultural operations.

Historical Onsite Uses

According to the EHMCA, the Project site has been historically utilized for agricultural purposes (since prior to 1957 until the present day). Therefore, a combination of several commonly-used pesticides (i.e., DDD, DDT and DDE), which are now banned, may have been used throughout the Project site. The historical use of agricultural pesticides may have resulted in pesticide residues of certain persistence in soil at concentrations that are considered to be hazardous based on established federal regulatory levels. The primary concern with historical pesticide residues is human health risk from inadvertent ingestion of contaminated soil, particularly by children. The presence of moderately elevated pesticide residuals in soil presents potential health and marketplace concerns. As the Project site has been historically used for agricultural purposes for several decades (between the 1950s and 1960s), onsite soils may contain pesticide residues.

Spills

There is reported residual crude oil and Bunker C oil in the soil along the southern portion of the Project site as a result of two offsite oil pipelines. Historically, the Old Valley Pipeline (OVP) and Tidewater Associated Oil Company (TAOC) pipelines trended along West Byron Road. The OVP is along the west side of the West Byron Road easement and the former TAOC pipeline is along the east side of West Byron Road along the Union Pacific Railroad (UPRR) line right-of-way (also trending in the vicinity of the southern boundary of the Project site).

The OVP was installed between 1902 and 1904 as a "hot line" (i.e., the oil was heated to facilitate transmission) and carried San Joaquin Valley crude oil north from the Kern River Oil Fields (in and near Bakersfield) to Standard Oil Company's Richmond Refinery. The pipeline and associated pump stations operated from 1903 until the early to mid-1930s. Pump station equipment and the pipeline were removed south of Tracy and used for other pipeline construction projects in California, including a second parallel line along the OVP right-of-way. The pipelines from Tracy to Richmond were used during the early 1940s to primarily transmit Bunker C fuel oil from the refinery to railroad hubs in Tracy. The pipelines northwest of Tracy may have also been used to transport crude oil to various markets within the Bay Area until the late 1960s. The pipelines northwest of Tracy were reportedly abandoned in 1970. Where the pipelines were not abandoned in place, they were removed and their trenches were likely backfilled with the excavated native soil.

The TAOC pipeline system was constructed in 1907, and like the OVP, transmitted heated crude oil from Bakersfield to the Bay Area. The TAOC pipeline was abandoned in the 1970s. In addition, two active

pipelines exist in the UPRR right-of-way. These include the Kinder-Morgan pipeline and the Chevron Bay Area Pipeline (BAPL). Other pipelines may also exist in the vicinity.

Site investigations have been undertaken by Chevron of properties along the historical pipelines (which included portions of the Project site). Crude oil affected soil, later attributed to the OVP/TAOC leaks, were identified.

Soil and Groundwater Investigations (Geomatrix, March 1999), Site Closure Requests and Soil Management Plans (Geomatrix, August 1999, Geomatrix December 1999, Geomatrix, September 2001) have been prepared for the Project site (APNs 209-27-026 and -030). Based on these reports, very limited petroleum hydrocarbon-affected soil was encountered at four to 15 feet below ground surface (bgs). Detected constituents (pyrene and chrysene) were below their respective residential preliminary remediation goals (PRGs) established by the U.S. Environmental Protection Agency (EPA), indicating that the presence of these constituents in soil at the site do not pose an unacceptable risk to future onsite residents. Also, the concentrations of detected benzene, toluene, ethylbenzene, xylenes and polycyclic aromatic hydrocarbons (PAHs) were below their respective PRGs, also indicating that the presence of these constituents in soil at the site, including the potential for additivity due to multiple constituents, do not pose an unacceptable risk to the health of future onsite residents. There were no detections of dissolved petroleum constituents in groundwater.

According to letters issued by the Department of Toxic Substance Control (DTSC), Regional Water Quality Control Board (RWQCB) and the San Joaquin County Environmental Health Department (EHD), no further investigation is required for this site due to pipeline impacted soils. It is noted that any changes in the present or proposed use of the site may require further site characterization and mitigation activity.

Per an interview conducted on August 10, 2010, with Mr. Michael Infurna of EHD, the Soil Management Plans previously prepared for the Project site do not consider vapor intrusion. Due to the known level of past contamination at the Project site, Mr. Infurna advised that the site characterization and extent of contamination at the Project site be updated for present day conditions. Mr. Infurna also recommended further vapor intrusion considerations, as it applies to onsite contaminated soils and was not considered as part of past investigations.

Although there is a known presence of hazardous materials contamination in onsite soils along the southern portions of the Project site, these detected concentrations do not pose an unacceptable risk to the health of future onsite residents, as determined in 1999. However, recent changes to the regulatory framework, as applicable to the Project, currently require further investigations to potential onsite vapor intrusion that may result from onsite contaminated soils. Thus, these historic spills associated with offsite petroleum pipelines have resulted in soil contamination at the Project site and may have resulted in a potential vapor intrusion condition at the Project site.

Per additional investigations documented in a report dated January 2009, a known third-party diesel spill on APN 209-27-014 (immediately adjacent to the OVP) may have contributed to contamination at this site. The diesel spill occurred when a big-rig truck traveling in dense fog on West Grant Line Road crossed West Byron Road and crashed on APN 209-27-014 in March 2008. A purported 140 gallons of diesel leaked from the ruptured fuel tank onto surface soil. To address the diesel spill, 130 cubic yards of affected soil were reportedly excavated by a third party to approximately 10 to 12 feet bgs. Groundwater was encountered at the bottom of the excavation, but a grab groundwater sample was not collected prior to backfill. Although approximately 130 cubic yards of affected soil were reportedly excavated to approximately 10 to 12 feet bgs, the adjoining up-gradient offsite property to the south reported

concentrations in the groundwater as a result of this spill. Thus, this offsite spill has potentially resulted in groundwater contamination to the Project area.

Railroad Right-Of-Way

The UPRR line is located along the southern boundary of the Project site. It should be noted that the UPRR line was historically referenced as the Southern Pacific Railroad. No railroad-related land uses or railroad spurs are located within the boundaries of the Project site.

Active and inactive railroad beds frequently have concentrations of petroleum products and lead elevated above natural background conditions. Petroleum product concentrations and lead concentrations are derived from drippings from rail vehicles and flaked paint, respectively. Wooden railroad ties may contain preservatives (i.e., creosote), some of which may contain hazardous constituents. Track switch locations often have elevated levels of petroleum hydrocarbons. Inorganic and organic herbicides, along with diesel fuel, may have been used for vegetation control. The potential for residual hazardous materials within areas of railroad right-of-way is likely.

4.10.2 REGULATORY SETTING

FEDERAL AND STATE FRAMEWORK

Environmental Protection Agency

According to the EPA, a "hazardous" waste is defined as one "which because of its quantity, concentrations, or physiochemical or infectious properties, may either increase mortality or produce irreversible or incapacitating illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed" (U.S. Public Health and Welfare Code Section 6903). Special handling and management are required for materials and wastes that exhibit hazardous properties. Treatment, storage, transport and disposal of these materials are highly regulated at both the federal and state levels. Compliance with federal and state hazardous materials laws and regulations minimizes the potential risks to the public and the environment presented by these potential hazards, which include, but are not limited to, the following:

- Resources Conservation and Recovery Act (RCRA) – hazardous waste management
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – cleanup of contamination
- Superfund Amendment and Reauthorization Act (SARA) – cleanup of contamination
- Hazardous Materials Transportation Act (HMTA) – safe transport of hazardous materials

These laws provide the "cradle to grave" regulation of hazardous wastes. Businesses, institutions and other entities that generate hazardous waste are required to identify and track their hazardous waste from the point of generation until it is recycled, reused or disposed. The primary responsibility for implementing RCRA is assigned to the EPA, although individual states are encouraged to seek authorization to implement some or all RCRA provisions.

The EPA and DTSC have developed and continue to update lists of hazardous wastes subject to regulation. In addition to the EPA and DTSC, the RWQCB, Central Valley (Region 5S), is the enforcing agency for the protection and restoration of water resources, including remediation of unauthorized releases of hazardous substances in soil and groundwater. Other state agencies involved in hazardous

materials management include the Office of Emergency Services, California Department of Transportation (Caltrans), California Highway Patrol (CHP), California Air Resources Board (CARB), and CalRecycle. California hazardous materials management laws include, but are not limited to, the following:

- Hazardous Materials Management Act – business plan reporting
- Hazardous Substance Act – cleanup of contamination
- Hazardous Waste Control Act – Hazardous waste management
- Safe Drinking Water and Toxic Enforcement Act of 1986 – releases of and exposure to carcinogenic chemicals

Department of Toxic Substances Control

The responsibility for implementation of RCRA was given to California Environmental Protection Agency's (Cal EPA's) DTSC in August 1992. The DTSC is also responsible for implementing and enforcing California's own hazardous waste laws, which are known collectively as the Hazardous Waste Control Law. Although similar to RCRA, the California Hazardous Waste Control Law and its associated regulations define hazardous waste more broadly and regulate a larger number of chemicals. Hazardous wastes regulated by California, but not by EPA, are called "non-RCRA hazardous wastes."

State Water Resources Control Board

Brownfields are underutilized properties where reuse is hindered by the actual or suspected presence of pollution or contamination. The goals of the State Water Resources Control Board's (SWRCB) Brownfield Program are to:

- Expedite and facilitate site cleanups and closures for Brownfields sites to support reuse of those sites
- Preserve open space and greenfields
- Protect groundwater and surface water resources, safeguard public health, and promote environmental justice
- Streamline site assessment, clean up, monitoring, and closure requirements and procedures within the various SWRCB site cleanup programs

Site clean up responsibilities for brownfields primarily reside within four main programs at the SWRCB: the Underground Storage Tank Program, the Site Cleanup Program, the Department of Defense Program and the Land Disposal Program. These SWRCB cleanup programs are charged with ensuring sites are remediated to protect the State of California's surface and groundwater and return it to beneficial use.

California Air Resources Board

One of CARB's major goals is to protect the public from exposure to toxic air contaminants. The California Air Toxics Program establishes the process for the identification and control of toxic air contaminants and includes provisions to make the public aware of significant toxic exposures and for reducing risk.

The Toxic Air Contaminant Identification and Control Act (AB 1807, Tanner 1983) created California's program to reduce exposure to air toxics. The Air Toxics "Hot Spots" Information and Assessment Act

(AB 2588, Connelly 1987) supplements the AB 1807 program, by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

Under AB 1807, CARB is required to use certain criteria in the prioritization for the identification and control of air toxics. In selecting substances for review, CARB must consider criteria relating to "the risk of harm to public health, amount or potential amount of emissions, manner of, and exposure to, usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community." AB 1807 also requires CARB to use available information gathered from the AB 2588 program to include in the prioritization of compounds. This report includes available information on each of the above factors required under the mandates of the AB 1807 program. AB 2588 air toxics "Hot Spots" program requires facilities to report their air toxics emissions, ascertain health risks, and to notify nearby residents of significant risks. In September 1992, the "Hot Spots" Act was amended by Senate Bill 1731 which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

Accidental Release Prevention Law

The state's Accidental Release Prevention Law provides for consistency with federal laws (i.e., the Emergency Preparedness and Community Right-to-Know Act and the Clean Air Act) regarding accidental chemical releases and allows local oversight of both the state and federal programs. State and federal laws are similar in their requirements; however, the California threshold planning quantities for regulated substances are lower than the federal quantities. Local agencies may set lower reporting thresholds or add additional chemicals to the program. The Accidental Release Prevention Law is implemented by the Certified Unified Program Agencies (CUPAs) and requires that any business, where the maximum quantity of a regulated substance exceeds the specified threshold quantity, register with the responsible CUPA as a manager of regulated substances and prepare a Risk Management Plan. A Risk Management Plan must contain an offsite consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. Businesses submit their plans to the CUPA, which makes the plans available to emergency response personnel. The Business Plan must identify the type of business, location, emergency contacts, emergency procedures, mitigation plans, and chemical inventory at each location.

Transportation of Hazardous Materials/Wastes

Transportation of hazardous materials/wastes is regulated by California Code of Regulations (CCR) Title 26. The U.S. Department of Transportation (DOT) is the primary regulatory authority for the interstate transport of hazardous materials. The DOT establishes regulations for safe handling procedures (i.e., packaging, marking, labeling and routing). The CHP and Caltrans enforce federal and state regulations and respond to hazardous materials transportation emergencies. Emergency responses are coordinated as necessary between federal, state and local governmental authorities and private persons through a state mandated Emergency Management Plan.

Worker and Workplace Hazardous Materials Safety

Occupational safety standards exist to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard

Communication Standard requires that workers be informed of the hazards associated with the materials they handle.

REGIONAL FRAMEWORK

Central Valley Regional Water Quality Control Board

The Central Valley RWQCB is the enforcing agency for the protection of water quality through the regulation of potentially water polluting practices. Key water quality program areas include agriculture and related industries, municipal and industrial waste disposal, abandoned mines and pollution cleanup. The Underground Storage Tank (UST) Program includes the cleanup of leaking tanks that often involve soil and groundwater investigation and remediation under the direction of a regulatory agency, which may include the RWQCB or county or city health departments. The various agencies coordinate to ensure that the requirements from each agency are met. Also, the Cleanup Program involves past waste disposal and handling practices, spills, and leaks that have contributed to polluted sites that could threaten municipal and private water supply wells. The RWQCB staff ensure that investigations proceed and regulations are met.

San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air Pollution Control District (SJVAPCD) works with CARB and is responsible for developing and implementing rules and regulations regarding air toxics on a local level. The SJVAPCD establishes permitting requirements, inspects emission sources, and enforces measures through educational programs and/or fines. The SJVAPCD also permits demolition activities involving hazardous materials (including ACMs) through District Rule 4002, which incorporates the National Emissions Standards for Hazardous Air Pollutants.

San Joaquin County

San Joaquin County has prepared a Hazardous Material Area Plan, in accordance with the California Health and Safety Code (HSC) (Division 20, Chapter 6.95, §25500 et seq.) and California Code of Regulations (CCR) (Title 19, Article 3, §2270 et seq.). The plan is designed to protect human health and the environment through hazardous materials emergency planning, response and agency coordination, and community right-to-know programs. The plan outlines the roles and responsibilities of federal, state and local agencies in responding to hazardous material releases and incidents. The City of Tracy's Police and Fire Departments work with San Joaquin County to implement this plan.

Environmental Health Department

The EHD was approved by the state as the CUPA for San Joaquin County in January 1997. The purpose of the CUPA is to consolidate, coordinate and make consistent the administrative requirements, permitting, inspection activities, enforcement activities and fees for hazardous waste and hazardous materials programs in each jurisdiction. The EHD administers the Hazardous Waste Generator, Hazardous Waste Onsite Treatment (Tiered Permitting) and Underground Storage Tank programs. The San Joaquin County Office of Emergency Services is a Participating Agency (PA) administering the Hazardous Material Release Response Plan and Inventories and the Accidental Release Prevention (Cal-ARP) programs.

The EHD also oversees the Underground Storage Tank (UST) program and Aboveground Petroleum Storage Act (APSA). The purpose of the UST program is to protect public health and the environment

from exposure to hazardous materials stored in USTs. The primary focus is on protection of groundwater from contamination. Activities include inspection, permitting, monitoring, repair, installation and removal of USTs. UST sites with identified contamination are referred to the EHD Site Mitigation Unit for cleanup oversight. The purpose of the APSA program is to protect waters of the state (surface water and groundwater) from exposure to (petroleum-based) oil stored in aboveground storage tanks by confirming compliance, for specified facilities, with the Federal Spill Prevention, Control and Countermeasure rule. This is achieved through routine, periodic and complaint inspections, surveillance, enforcement, public education, and assistance to industry.

San Joaquin Valley Solid Waste Division

The San Joaquin Valley Solid Waste Division provides integrated waste management services (e.g., disposal services, recycling, special waste recycling, household hazardous waste management, and waste oil collection) to businesses and residents throughout the County. San Joaquin County's Permanent Household Hazardous Waste Consolidation Facility is located on a two-acre parcel at 7850 R.A. Bridgeford Street, Stockton, CA. The facility includes a 5,300-square-foot split-face cement block building, a parking area, loading dock and storage bins. The facility handles approximately 6,000 residents and businesses annually and is open to the public three days per week, Thursday through Saturday, from 9:00 a.m. to 3:00 p.m., excluding major holidays.

LOCAL FRAMEWORK

City of Tracy Fire Department, Fire Prevention Division

The California Fire Code contains a list of activities, operations, practices, or functions for which permits are required by the City of Tracy Fire Department (CTFD). For each of the permitted activities, detailed safety guidelines and requirements can be found in other sections of the California Fire Code. The intent of the permit system is to ensure that potentially hazardous uses or processes are conducted in accordance with accepted safety standards and guidelines.

City of Tracy General Plan

The Safety Element of the City of Tracy General Plan (City General Plan), provides information about risks in the City due to natural and human-made hazards. It addresses the protection of the community from any unreasonable risks associated with the effects of wildland fires and hazardous materials and waste. This element also contains information and policies regarding general emergency preparedness.

Wildland Fires

The risk of wildland fires is related to a combination of factors, including winds, temperatures, humidity levels and fuel moisture content. Of these four factors, wind is the most crucial. Steep slopes also contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Features in some parts of the City, including highly flammable vegetation, and warm and dry summers with temperatures often exceeding 100 degrees Fahrenheit, create a situation that results in potential wildland fires. Where there is easy human access to dry vegetation, fire hazards increase because of the greater chance of human carelessness. High hazard areas include outlying residential parcels and open lands adjacent to residential areas.

To quantify this potential risk, the California Department of Forestry (CDF) has developed a Fire Hazard Severity Scale that utilizes three criteria in order to evaluate and designate potential fire hazards in

wildland areas. The criteria are fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents), and topography (degree of slope). The following General Plan goals, objectives and policies are applicable to the proposed Project:

Goal SA-3 Protection of lives and property from wildland fire hazards.

Objective SA-3.1 Evaluate the potential for wildland fire hazards when considering new development.

Policy P3 New developments shall satisfy fire flow and hydrant requirements, street widths and design requirements as established by the City.

Hazardous Materials and Waste

Products as diverse as gasoline, paint solvents, film processing chemicals, household cleaning products, refrigerants and radioactive substances are categorized as hazardous materials. What remains of a hazardous material after use or processing is considered to be a hazardous waste. The handling, transportation and disposal of such waste is of concern to all communities. Improper handling of hazardous materials or wastes may result in significant effects to human health and the environment.

Many businesses and residents in the City use hazardous materials and generate some amount of hazardous waste. The most common hazardous waste in Tracy are generated from gasoline service stations, dry cleaners, automotive mechanics, auto body repair shops, machine shops, printers and photo processors, and agriculture. Most of these wastes are petroleum-based or hydrocarbon hazardous waste and include cleaning and paint solvents, lubricants and oils. However, medical wastes, defined as potential infectious waste from sources such as laboratories, clinics and hospitals, are also included among the hazardous wastes found in the City. The following General Plan goals, objectives and policies are applicable to the Project:

Goal SA-4 Protection from the harmful effects of hazardous materials and waste.

Objective SA-4.1 Minimize exposure to harmful hazardous materials and waste by Tracy residents.

Policy 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 investigation 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.

Policy 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.

Policy P5 The City shall continue to encourage the reduction of solid and hazardous wastes generated within the City, in accordance with countywide plans.

Policy P6 The City shall partner with San Joaquin County to implement the Hazardous Materials Area Plan.

Emergency Preparedness

As required by state law, Tracy has established emergency preparedness procedures to respond to a variety of natural and human-made disasters that could confront the community. The Emergency Plan establishes the Standardized Emergency Management System (SEMS) and includes information on mutual aid agreements, hierarchies of command and different levels of response in emergency situations.

Goal SA-6 Preparation for emergencies.

Policy P1 Emergency access routes shall be kept free of traffic impediments.

4.10.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *CEQA Guidelines,* the proposed Project would have a significant hazards or hazardous materials impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- 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
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school
- 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
- 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 for people residing or working in the project area
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands

AREAS OF NO PROJECT IMPACT

The following impacts are either not applicable to the Project or not reasonably foreseeable:

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

The nearest school to the Project site is the Art Freller Elementary School (located at 2421 West Lowell Avenue, Tracy, approximately 0.75 mile east). Also, there are no proposed school sites located within 0.25-mile of the Project site. Thus, as no existing or proposed schools are located within 0.25-mile of the Project site, no impacts would occur in this regard.

- 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 for people residing or working in the project area
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area

The nearest airport to the Project site is the Tracy Municipal Airport, located approximately 4.25 miles southeast. The Project site is not located within an airport land use plan area or within two miles of an airport or private airstrip. Furthermore, the construction and operation of the proposed Project would not result in airport-related safety hazards for people residing or working in the area. Therefore, no impacts would result in this regard and no further analysis of this issue is required.

POTENTIAL IMPACTS AND MITIGATION MEASURES

4.10-1 SHORT-TERM CONSTRUCTION ACTIVITIES AND LONG-TERM OPERATIONS AT THE PROJECT SITE MAY CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR ENVIRONMENT THROUGH ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

One of the means through which human exposure to a hazardous substance could occur is through accidental release. Incidents that result in an accidental release of a hazardous substance into the environment can cause contamination of soil, surface water and groundwater, in addition to any toxic fumes that might be generated. Human exposure of contaminated soil or water can have potential health effects based on a variety of factors, such as the nature of the contaminant and the degree of exposure. Site disturbance/construction activities associated with development of the Project site could release hazardous materials into the environment through reasonably foreseeable upset and accident conditions. Also, hazardous materials releases could occur during Project operations that could expose persons to hazardous materials.

Structural Demolition

The Project site consists of three residential structures, four shed structures (including a garage structure), and two barn structures. All of the existing onsite structures would need to be demolished prior to construction of new buildings. Demolition of structures could expose construction personnel and the public to hazardous materials such as asbestos-containing materials (ACMs) or lead-based paints (LBPs). Given the age of the buildings within the Project site (the majority of which were constructed before 1978), it is likely that these buildings could contain LBPs, ACMs and/or other contaminants. As a result, construction workers and the public could be exposed. Federal and state regulations govern the renovation and demolition of structures where ACMs and LBPs are present. All demolition that could

result in the release of ACMs or LBPs must be conducted according to federal and state laws and regulations.

The National Emission Standards for Hazardous Air Pollutants (NESHAP), implemented through the SJVAPCD Rule 4002, mandates that building owners conduct an asbestos survey to determine the presence of ACMs prior to the commencement of any remedial work, including demolition. If ACM material is found, abatement of asbestos would be required prior to any demolition activities. Also, if paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste would be required to be evaluated independently from the building material by a qualified Environmental Professional. If lead-based paint is found and is separating from the building material, abatement would be required to be completed by a qualified Lead Specialist prior to any demolition activities. Compliance with Mitigation Measures 4.10-1a and 4.10-1b and compliance with SJVAPCD Rule 4002 would reduce potential impacts in this regard to less than significant levels.

Agricultural Activities

The Project site is currently utilized for agricultural purposes. Based on the EHMCA, no hazardous materials contamination has resulted at the Project site due to current agricultural operations. However, the Project site has been historically utilized for agricultural purposes (since prior to 1957 until the present day). Therefore, a combination of several commonly-used pesticides (i.e., DDD, DDT and DDE), which are now banned, may have been used throughout the Project site (particularly from the 1940s through the 1960s). The historical use of agricultural pesticides may have resulted in pesticide residues of certain persistence in soil at concentrations that are considered to be hazardous based on established federal regulatory levels. The primary concern with historical pesticide residues is human health risk from inadvertent ingestion of contaminated soil, particularly by children. The presence of moderately elevated pesticide residuals in soil presents potential health and marketplace concerns.

Development at the Project site could expose construction workers (during site disturbance activities) and the public (during operations) to hazardous materials. Future development at the Project site would be required to conduct soil sampling within the portions of the Project site that have historically been utilized for agricultural purposes and may contain pesticide residues in the soil (as determined by a qualified Phase II/Site Characterization specialist). The sampling, conducted in consultation with the EHD, would determine if pesticide concentrations exceed established regulatory requirements and would identify further site characterization and remedial activities, if necessary. Should further site characterization/remedial activities be required, these activities would be required to be conducted per the applicable regulatory agency requirements, as directed by the EHD. With implementation of Mitigation Measure 4.10-1c, impacts pertaining to historical agricultural uses would be reduced to less than significant levels.

Known Contamination from Reported Spills

There is reported residual crude oil and Bunker C oil in the soil along the southern portion of the Project site as a result of two offsite oil pipelines (the OVP and TAOC pipelines). Site investigations have been undertaken by Chevron for properties along the historical pipelines (which included portions of the Project site). Crude oil affected soil, later attributed to the OVP/TAOC leaks, were identified. Based on past investigations at the Project site, very limited petroleum hydrocarbon-affected soil was encountered at four to 15 feet bgs. Detected constituents (pyrene and chrysene) as well as benzene, toluene, ethylbenzene, xylenes, and PAHs were below their respective residential PRGs, indicating that the presence of these constituents in soil at the site do not pose an unacceptable risk to future onsite residents. There were no detections of dissolved petroleum constituents in groundwater. As part of these

investigations, Geomatrix Consultants, Inc. prepared two soil management plans, in December and August of 1999, for portions of the Project site as part of a previous development project proposed.

According to letters issued by the DTSC, RWQCB and the EHD, no further investigation was required for these onsite properties, at that time, as a result of pipeline impacted soils. However, these agencies have noted that any changes in the present or proposed use of the site may require further site characterization and mitigation activity. Per an interview conducted with Mr. Michael Infurna of the EHD, the soil management plans previously prepared for the Project site do not consider vapor intrusion impacts. Due to the known level of past contamination at the Project site, Mr. Infurna advised that the site characterization and extent of contamination at the Project site be updated for present day conditions. Mr. Infurna also recommended further vapor intrusion investigations for the Project site, as it applies to onsite contaminated soils.

With implementation of Mitigation Measures 4.10-1d, a qualified Site Characterization specialist would be required to conduct updated site characterization at the Project site prior to issuance of building permits, in consultation with Chevron and EHD, with regard to onsite contaminated soils associated with adjacent pipeline leaks. Upon completion of site characterization activities, remedial activities, if necessary, would be recommended in consultation with EHD. Also, prior to issuance of building permits, vapor intrusion investigations would be required to be conducted by a qualified Environmental Professional, in consultation with the EHD (Mitigation Measure 4.10-1e). Should the Environmental Professional determine that proposed buildings could be impacted by vapor intrusion, the Environmental Professional, in consultation with EHD, would recommend specific design measures to be incorporated into the buildings' design that would reduce these indoor air quality concentrations to below regulatory thresholds, as directed by EHD. With implementation of Mitigation Measures 4.10-1d and 4.10-1e, impacts to persons at the Project site as a result of offsite pipeline leaks would be reduced to less than significant levels.

Based on the EHMCA, a known third-party diesel spill occurred at APN 209-27-014 (immediately adjacent to the Project site) in March 2008. The diesel spill occurred when a big-rig truck traveling in dense fog on West Grant Line Road crossed West Byron Road and crashed. A purported 140 gallons of diesel leaked from the ruptured fuel tank onto surface soil. To address the diesel spill, 130 cubic yards of affected soil were reportedly excavated by a third party to approximately 10 to 12 feet bgs. Groundwater was encountered at the bottom of the excavation, but a grab groundwater sample was not collected prior to backfill. Although approximately 130 cubic yards of affected soil were reportedly excavated to approximately 10 to 12 feet bgs, the adjoining up-gradient offsite property to the south reported concentrations in the groundwater as a result of this spill. Thus, this offsite spill has potentially resulted in groundwater contamination to the Project area. With implementation of Mitigation Measure 4.10-1e, vapor intrusion investigations would be required to consider potential impacts as a result of contaminated groundwater. Also, with implementation of Mitigation Measure 4.10-1f, construction worker safety would be minimized through implementation of a Worker Safety Plan that would outline specific measures that would be taken by personnel in the event that potentially contaminated groundwater is encountered.

According to the 2005 UWMP[1], Tracy provides water services to all of its residents within the City limits. Surface water has historically comprised between 50 to 60 percent of the City's total water supply. The City's two wholesale surface water supply suppliers are the U.S. Bureau of Reclamation (USBR) and the South San Joaquin Irrigation District (SSJID). Additional water comes from the Delta-Mendota Canal the Stanislaus River and the Tracy Groundwater Sub-basin. It is anticipated that potable water for the project would be provided by existing water infrastructure, which is owned by the City. Therefore, it is not

[1] 2005 City of Tracy Urban Water Management Plan, dated December 2005

anticipated that future development of the proposed Project would use groundwater located within the Project area as a potable water source.

Railroad Right-of-Way

The UPRR Railroad is located along the southern boundary of the Project site. Active and inactive railroad beds frequently have concentrations of petroleum products and lead elevated above natural background conditions. Petroleum product concentrations and lead concentrations are derived from drippings from rail vehicles and flaked paint, respectively. Wooden railroad ties may contain preservatives (i.e., creosote), some of which may contain hazardous constituents. Track switch locations often have elevated levels of petroleum hydrocarbons. Inorganic and organic herbicides, along with diesel fuel, may have been used for vegetation control. As the proposed Project would not involve the disturbance of existing or historical railroad rights-of-way, it is unlikely that the Project would involve the disturbance of potential hazardous materials in the soil as a result of offsite railroad activities. Thus, impacts in this regard would be less than significant.

Conclusion

Remediation activities could expose construction workers to a variety of potentially hazardous materials. Although remedial processes are yet to be determined, site remediation activities are strictly controlled by federal, state and local requirements. Toxic or hazardous materials would be handled in strict accordance with existing laws and regulations. Although implementation of Mitigation Measures 4.10-1a through 4.10-1f would reduce potential impacts from site disturbance activities, accidental conditions may arise during construction of future development within the Project site. If unknown wastes or suspect materials are discovered during construction by the contractor, which he/she believes may involve hazardous wastes/materials, the contractor would be required to implement Mitigation Measure 4.10-1g.

Therefore, with implementation of Mitigation Measures 4.10-1a through 4.10-1g and compliance with applicable federal, state and local regulatory requirements pertaining to hazardous materials, potential accidental releases would be reduced to less than significant levels.

Mitigation Measures:

4.10-1a Prior to demolition and/or rehabilitation activities, an asbestos survey shall be conducted by an Asbestos Hazard Emergency Response Act (AHERA) and California Division of Occupational Safety and Health (Cal/OSHA) certified building inspector to determine the presence or absence of asbestos-containing materials (ACMs). If ACMs are located, abatement of asbestos shall be completed prior to any activities that would disturb ACMs or create an airborne asbestos hazard. Asbestos removal shall be performed by a State certified asbestos containment contractor in accordance with the San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4002.

4.10-1b If paint is separated from building materials (chemically or physically) during demolition of the structures, the paint waste shall be evaluated independently from the building material for lead by a qualified Environmental Professional. If lead-based paint is found, abatement shall be completed by a qualified Lead Specialist prior to any activities that would create lead dust or fume hazard. Lead-based paint removal and disposal shall be performed in accordance with California Code of Regulation Title 8, Section 1532.1, which specifies exposure limits, exposure monitoring and respiratory protection, and

mandates good worker practices by workers exposed to lead. Contractors performing lead-based paint removal shall provide evidence of abatement activities to the City.

4.10-1c Prior to issuance of a grading permit, soil sampling shall occur within the portions of the Project site that have historically been utilized for agricultural purposes and may contain pesticide residues in the soil, as determined by a qualified Phase II/Site Characterization specialist. The sampling, conducted in consultation with the San Joaquin County Environmental Health Department (EHD), shall determine if pesticide concentrations exceed established regulatory requirements and shall identify further site characterization and remedial activities, if necessary. Should further site characterization/remedial activities be required, these activities shall be conducted per the applicable regulatory agency requirements, as directed by the EHD.

4.10-1d A qualified Site Characterization specialist shall conduct updated site characterization at the Project site prior to issuance of building permits, if required by the San Joaquin County Environmental Health Department (EHD), in consultation with Chevron and EHD, with regard to onsite contaminated soils associated with adjacent pipeline leaks. Upon completion of site characterization activities, the Site Characterization specialist shall recommend remedial activities, if necessary, in consultation with EHD.

4.10-1e Prior to issuance of building permits, vapor intrusion investigations shall be conducted by a qualified Environmental Professional, in consultation with the San Joaquin County Environmental Health Department (EHD). Should the Environmental Professional determine that proposed buildings could be impacted by vapor intrusion, the Environmental Professional, in consultation with EHD, shall recommend specific design measures to be incorporated into the buildings design that would reduce these indoor air quality concentrations to below regulatory thresholds, as directed by the EHD.

4.10-1f Prior to issuance of a grading permit, the Project applicant(s) shall submit a Worker Safety Plan for site disturbance/construction activities, in consultation with California Division of Occupational Safety and Health (Cal/OSHA) and the San Joaquin County Environmental Health Department (EHD). The Worker Safety Plan shall include safety precautions (e.g., personal protective equipment or other precautions to be taken to minimize exposure to hazardous materials) to be taken by personnel when encountering potential hazardous materials, including potential contaminated groundwater.

4.10-1g If unknown wastes or suspect materials are discovered during construction by the contractor that are believed to involve hazardous waste or materials, the contractor shall comply with the following:

- Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area
- Notify the City Building Official
- Secure the areas as directed by the City Building Official
- Notify the San Joaquin County Environmental Health Department's (EHD's) Hazardous Waste/Materials Coordinator.

Level of Significance After Mitigation: Less Than Significant Impact.

4.10-2 OPERATIONS OF THE PROJECT COULD CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT THROUGH THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

The proposed Project would result in a maximum of 466,000 square feet of commercial/office uses to be built on the Project site. Future onsite commercial uses could result in accidental release of hazardous materials (e.g., leaking storage tanks associated with gasoline stations or spills during storage, use, transport, or disposal).

Storage and Handling

Per the existing EHD standards and regulations, hazardous materials are required to be stored in designated areas designed to prevent accidental release to the environment. California Building Code (CBC) requirements prescribe safe accommodations for materials that present a moderate explosion hazard, high fire or physical hazard, or health hazards. Compliance with all applicable federal, state and local laws related to the storage of hazardous materials would be required to maximize containment and provide for prompt and effective clean-up, if an accidental release occurs, thereby ensuring that less than significant impacts would occur.

Specific activities related to the use of hazardous materials would be required to comply with federal, state and local laws to eliminate or reduce the consequence of hazardous materials accidents. Occupational safety standards exist to minimize worker safety risks from both physical and chemical hazards in the workplace. Cal/OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle. The Business Emergency Plan/Handler Program conducted by EHD regulates facilities which handle and store onsite specified types and quantities of hazardous and acutely/extremely hazardous materials through permitting, routine facility inspections, and development of detailed site plans indicating where hazardous materials are stored. San Joaquin County Office of Emergency Services administers the Hazardous Material Release Response Plan and Inventories and the Accidental Release Prevention (Cal-ARP) programs. In the event that a hazardous materials related incident occurs, the City of Tracy Fire Department or Police Department would respond.

The Hazardous Materials Release Response Plans and Inventory Law of 1985 (or the Business Plan Act) requires that a business that uses, handles or stores hazardous materials above a certain quantity prepare a plan which must include an inventory of hazardous substances on the premises. A Risk Management and Prevention Plan (RMPP) may be required for businesses that use acutely hazardous substances and are located in proximity to sensitive land uses. As a part of the Risk Management and Prevention Plan, businesses that handle acutely hazardous materials must include a hazard and operability study (HAZOP), which analyzes potential hazards to sensitive populations in the vicinity. EHD oversees the submittal of Business Emergency Plans, which are intended to mitigate potential release of hazardous substances and minimize potential harm or damage.

Major hazardous materials accidents associated with commercial uses are infrequent and additional emergency response capabilities are not anticipated to be necessary to respond to the potential

incremental increase in the number of incidents that could result from future development at the Project site. Further, adherence to applicable regulations would be required to reduce any potential consequences of a hazardous materials incident during operations. Thus, with implementation of the existing laws and regulations pertaining to the use, storage and disposal of hazardous materials, impacts in this regard are less than significant.

Offsite Transport

Transportation of hazardous materials can result in accidental spills, leaks, toxic releases, fire or explosion. The potential exists for licensed vendors to transport hazardous materials to and from onsite commercial uses. Accidental releases would most likely occur in the future onsite commercial areas and along transport routes leading to and from these areas. The City's street setback requirements minimize the direct damage that may occur from transportation-related hazardous waste spills. Additionally, the DOT Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 49 of the Code of Federal Regulations, and implemented by Title 13 of the CCR. Appropriate documentation would be provided for all hazardous waste that is transported in connection with Project-specific activities, as required for compliance with existing hazardous materials regulations. Compliance with all applicable federal and state laws related to the transportation of hazardous materials would reduce the likelihood and severity of accidents during transit, thereby ensuring that a less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

4.10-3 ***THE PROJECT SITE IS LOCATED ON A SITE THAT IS INCLUDED ON A LIST OF HAZARDOUS MATERIALS SITES COMPILED PURSUANT TO GOVERNMENT CODE SECTION 65962.5 AND, AS A RESULT, COULD CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT.***

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Government Code Section 65962.5 requires DTSC and SWRCB to compile and update a regulatory sites listing (per the criteria of the Section). The State Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code. Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations, to compile as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

As part of the EHMCA, a listing of regulatory properties was obtained by Environmental Data Resources (EDR) (which includes databases maintained by the DTSC, SWRCB, State Department of Health Services and other local enforcement agencies pertaining to solid waste disposal facilities). Further, EDR's GeoCheck report, provided in the EHMCA, also includes a listing of any public drinking water wells located within the Project area. According to EDR's listings, the onsite address 13880 West Grant Line Road was reported in two databases maintained by the DTSC, the Voluntary Cleanup Program Properties (VCP) database and EnviroStor Database. The Project site is not listed in any regulatory databases maintained by the SWRCB, State Department of Health Services or other local enforcement

agency pertaining to solid waste disposal facilities. Also, no public drinking water wells are located within one mile of the Project site.

The VCP database includes a listing of properties that contain a low hazardous materials threat level 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. The DTSC's Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor Database identifies sites that have known contamination or sites for which there may be reasons to investigate further. EnviroStor provides 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.

The Project site has been listed in these DTSC regulatory databases as a result of past onsite investigations for offsite pipelines spills that have resulted in contamination along the southern portion of the Project site. Refer to Impact 4.10-1 for a discussion of potential impacts associated with these spills. With implementation of the recommended Mitigation Measures 4.10-1d and 4.10-1e, impacts to persons at the Project site as a result of offsite pipeline leaks would be reduced to less than significant levels.

Mitigation Measures: Implement Mitigation Measures 4.10-1d and 4.10-1e.

Level of Significance After Mitigation: Less Than Significant Impact.

4.10-4 DEVELOPMENT OF THE PROPOSED PROJECT WOULD NOT IMPAIR IMPLEMENTATION OF OR PHYSICALLY INTERFERE WITH AN ADOPTED EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

As required by state law, Tracy has established emergency preparedness procedures to respond to a variety of natural and human-made disasters that could confront the community. The Emergency Plan establishes the Standardized Emergency Response System (SEMS) and includes information on mutual aid agreements, hierarchies of command and different levels of response in emergency situations.

The proposed Project is subject to compliance with the City's Emergency Plan and associated SEMS. The Project would result in increased vehicle trips during both construction and Project operations. However, the proposed Project would not result in any lane closures during construction, and would not result in any long-term impacts to public access or travel upon public rights-of-way. Furthermore, the proposed Project would be subject to the site plan review requirements of the City of Tracy Police Department and Fire Department to ensure that all access roads, driveways, and parking areas would remain accessible to emergency service vehicles. Therefore, a less than significant impact related to emergency response and evacuation plans would result and no further analysis of this issue is required.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

4.10-5 PROJECT IMPLEMENTATION MAY EXPOSE PEOPLE OR STRUCTURES TO A SIGNIFICANT RISK OF LOSS, INJURY, OR DEATH INVOLVING WILDLAND FIRES, INCLUDING WHERE WILDLANDS ARE ADJACENT TO URBANIZED AREAS OR WHERE RESIDENCES ARE INTERMIXED WITH WILDLANDS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Features in some parts of the City, including highly flammable vegetation, and warm and dry summers with temperatures often exceeding 100 degrees Fahrenheit, create a situation that results in potential wildland fires. Where there is easy human access to dry vegetation, fire hazards increase because of the greater chance of human carelessness. High hazard areas include outlying residential parcels and open lands adjacent to residential areas.

The Project site is located in a rural area with urban development to the east. The Project area includes open lands associated with agricultural and grazing uses. Thus, implementation of the proposed Project may subject people or structures to a significant risk of loss, injury, or death as a result of exposure to wildland fires. Mitigation Measure 4.10-7 would require that any new development at the Project site satisfy flow and hydrant requirements, street widths and design requirements as established by the City. Furthermore, the proposed Project would be subject to the site plan review requirements of the City of Tracy Fire Department to ensure that future development would not impede emergency fire access to the Project site. With implementation of Mitigation Measure 4.10-7, impacts pertaining to wildland fires would be reduced to less than significant levels.

Mitigation Measures:

4.10-5 Prior to issuance of building permits, all development at the Project site shall satisfy fire flow and hydrant requirements, street widths and design requirements, as established by the City.

Level of Significance After Mitigation: Less Than Significant Impact.

4.10.4 ANALYSIS OF CUMULATIVE IMPACTS

For hazards and hazardous materials, the study area considered for cumulative impacts consists of: (a) the area that could be affected by proposed Project activities; and (b) the areas that could be affected by other past, present of future projects whose activities could directly or indirectly affect the presence or fate of hazardous materials on the Project site. Additional hazardous materials investigations on a project-by-project basis would reduce the existing human health risk from on and offsite contamination.

The incremental effect of the proposed Project, when combined with the effects created by other past, present and reasonably foreseeable projects, would not be cumulatively considerable or significant because the Project would be required to comply with federal, state and local regulations, which would ensure that potential contamination or exposure to hazardous materials would be avoided or minimized on a case-by-case basis. Impacts in this regard would be less than significant with compliance of applicable federal, state and local regulations and implementation of recommended mitigation measures.

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4.11 HYDROLOGY AND WATER QUALITY

This section evaluates potential hydrology and water quality impacts that could result from the proposed Project. Information in this section is based on the City of Tracy General Plan (City General Plan); the City of Tracy General Plan EIR (City General Plan EIR); the Filios/Dobler General Plan and Annexation EIR (1999); the City of Tracy Storm Drainage Master Plan (1994); the City of Tracy Storm Drainage Master Plan Supplement No. 1 (2001); the City of Tracy Citywide Storm Drainage Master Plan – Final Draft (not formally adopted) (Stantec, 2010); and the City of Tracy Manual of Stormwater Quality Standards for New Development and Redevelopment (Larry Walker Associates, 2008).

4.11.1 ENVIRONMENTAL SETTING

REGIONAL HYDROLOGY AND DRAINAGE

The City of Tracy (City) is located within the San Joaquin River drainage system. Annual precipitation in the area primarily occurs from October through May and typically totals about 12 inches. Most of the City is located on relatively flat land that generally slopes from the southwest to the northeast with average grades ranging from 0.2 to 0.3 percent. Surface drainage generally flows from the south to north, toward Old River. Major drainage features within the City's Sphere of Influence (SOI) and that have an impact on drainage within the City's SOI include the California Aqueduct, Delta-Mendota Canal, Union Pacific Railroad, West Side Irrigation District (WSID) Upper Main Canal, hills to the southwest of the City, WSID tailwater ditches, Naglee-Burk Irrigation District (NBID) tailwater ditches, City storm drainage facilities (Westside Channel System, Eastside Channel System, City Outfall Channel, trunk line storm drains and a number of detention basins, the largest being public detention basin (DET) 10/11 near the Tracy Mall) and Old River.

Drainage facilities serving existing developed areas of the City generally include the following components: surface drainage via street; underground storm drains; open channels and channel parkways; irrigation tailwater facilities that accept urban runoff; detention basins, including joint-use park and recreation facilities; pumping facilities; and temporary retention basins. Undeveloped areas within the City's SOI predominantly consist of agricultural lands that drain from south to north and from southwest to northeast, also toward Old River. These agricultural areas are typically drained by tailwater ponds, tailwater ditches, and tailwater ponds that drain to tailwater ditches. The larger tailwater ditches are owned and operated by WSID, NBID and other irrigation districts. Presently, the majority of storm drainage generated by existing developed areas within the City's SOI discharges to one of four outfalls that eventually discharge to Old River to the north. These outfalls are Sugar Cut, 18-inch Storm Drain Force Main (Lammers Road), WSID Main Drain and Patterson Run.

The five major watersheds within the City's SOI include the Eastside Channel Watershed, Westside Channel Watershed, Lammers Watershed, Mountain House Watershed and Tracy Hills Watershed.

SITE DRAINAGE

The Project site is part of the approximately 12.9-square-mile Westside Channel Watershed. There are two separate outfalls for storm runoff generated within the Westside Channel Watershed. They are the WSID Main Drain that serves an approximately two-square-mile portion of the overall watershed and DET 10/11 with its pump station and force main (extending to Old River to the north) that has the capacity to serve the remaining majority of the overall watershed with the exception of agricultural properties that are outside of the City's SOI. The Project site would be served by DET 10/11. The main storm drainage infrastructure elements for the portion of the watershed that the Project site is a part of

have been constructed and are operational. The primary elements of the system consist of channel parkways, open channels, detention basins and large closed conduits that all have capacity to accommodate a 100-year 24-hour storm. However, there are no City or County maintained drainage features on the Project site. The Project site and surrounding area are generally flat, and water drains through natural sheetflow to the north.

WATER QUALITY

Surface Water Quality

There are no surface water features on or near the Project site and no site-specific data regarding stormwater runoff quality from the Project site exist. However, several pollutants could be present in the stormwater runoff from the Project site, such as sediment, nutrients, oxygen-demanding substances, heavy metals, petroleum hydrocarbons, pathogenic bacteria and viruses. Agricultural activities are a major source of sediment erosion and nutrients. Petroleum hydrocarbons result mostly from vehicles. Nutrient and bacterial sources include fertilizers, pet wastes and faulty septic tanks. The closest drainage to the Project site, the Old River, has impaired water quality between the San Joaquin River and the Delta Mendota Canal due to low dissolved oxygen.

Groundwater Quality

The City's existing groundwater water supply is heavily mineralized and the surface water portion occasionally has taste and odor problems resulting from algae blooms in the Delta. The City Utilities Division of the Public Works Department has a regular program of water quality monitoring, system flushing and system inspection to monitor these potential issues.

GROUNDWATER

The City pumps groundwater from a 950-square mile portion of the larger San Joaquin Valley groundwater basin. The City operates eight groundwater wells, with a total extraction capacity of 15 million gallons per day (mgd). According to a groundwater study completed by the City, the estimated sustainable operational yield from these wells is approximately 9,000 acre-feet (af) annually and as a result, the City's Groundwater Management Policy prohibits groundwater extraction to exceed this amount. Historically, groundwater has accounted for approximately 40 to 50 percent of the City's annual water supply. However, this percentage has been decreasing over the last few years with approximately seven percent of the City's total waster supply coming from groundwater in 2009 (approximately 0.4 billion gallons, which is equivalent to approximately 123 acre-feet per year [af/y])[1]. (An acre-foot [af] is the volume of water used to cover one acre of land with one foot of water [325,850 gallons]. A single-family home uses approximately 0.5 af per year.) This reduction in groundwater pumping is consistent with the City's long-term objectives of utilizing groundwater for emergency and peak demand needs and utilizing the aquifer for water storage to improve water quality and increase water system reliability for the City's water customers.

FLOODING

Flood hazards in San Joaquin County are related to 100-year floods, dam failures and levee failures in the Delta. Flooding is controlled by a system of dams, dikes, spillways and reservoirs.

[1] Steve Bayley, Personal Communication, 2011.

The Federal Emergency Management Agency (FEMA) determines floodplain zones in an effort to assist cities in mitigating flooding hazards through land use planning. FEMA also outlines specific regulations for any construction within a 100-year floodplain. The 100-year floodplain denotes an area that has a one percent chance of being inundated during any particular 12-month period. The risk of this area being flooded in any century is one percent, but statistically the risk is almost 40 percent in any 50-year period. The Flood Insurance Rate Map (FIRM) panel that covers the Project site (06077C0590F) shows that the Project site is outside of the 100-year floodplain.

Failure of the San Luis dam, the New Melones dam or the New Exchequer dam has the potential to inundate some areas within the northern portion of the City. However, the Project site is outside these dam inundation areas. Portions of San Joaquin County could be subject to flooding due to seiches, which could result in levee failure. However, the City is not in close proximity to the areas most likely to be affected. Moreover, the potential for levee failure is greatest in the Delta where levees are constructed of unstable materials like peat soil and silt and none of these areas are near the Project site.

TSUNAMI, SEICHE AND MUDFLOW

A tsunami is a large sea wave generated by earthquakes that can travel across the ocean at hundreds of miles an hour and cause tall ten foot (and higher) waves. Tsunamis are not a risk factor for the Project area due to its inland location. A seiche is a wave generated in a closed body of water, which can be compared to the back-and-forth sloshing of water in a tub. Seiches can be caused by winds, changes in atmospheric pressure, underwater earthquakes or landslides into the water. Bodies of water such as reservoirs, ponds and swimming pools are likely to experience seiche waves up to several feet in height during a strong earthquake. The City is not located near areas likely to be affected by seiche flooding. In addition, the Project site is not near any physical or geologic features that would pose a mudflow hazard, such as a volcano or hillside.

4.11.2 REGULATORY SETTING

FEDERAL FRAMEWORK

Clean Water Act

The Federal Clean Water Act (CWA) places the primary responsibility for surface water pollution control and water resources development planning with the states. However, the act requires the states to follow certain guidelines in developing their programs and allows the U.S. Environmental Protection Agency (EPA) to withdraw control from states with inadequate implementation mechanisms. The CWA requires states to adopt water quality standards for receiving surface water bodies and to have those standards approved by the EPA. Water quality standards consist of designating beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply and fishing), along with water quality criteria necessary to support those uses. Water quality criteria are prescribed concentrations or levels of constituents, such as lead, suspended sediment, and fecal coliform bacteria or narrative statements which represent the quality of water that supports a particular use.

Section 303(d) – Total Maximum Daily Loads

When water quality does not meet CWA standards and compromises designated beneficial uses (e.g., wildlife habitat, agricultural supply and fishing) of a particular receiving water body, Section 303(d) of the CWA requires that water body be identified and listed as "impaired." Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing

pollutant(s). A TMDL is an estimate of the total load of pollutants from point, non-point and natural sources that a water body may receive without exceeding applicable water quality standards (with a "factor of safety" included). Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

Section 401 Water Quality Certification

Under Section 401 of the CWA (33 USC 466 et seq.) every discharger that may discharge pollutants into the waters of the U.S. must apply for a federal permit or license (including permits under Section 404 of the CWA) to ensure that the proposed activity complies with state water quality standards.

Section 402 National Pollutant Discharge Elimination System General Construction Storm Water Permit

In 1972, the Federal Water Pollution Control Act (later referred to as the CWA) was amended to require National Pollutant Discharge Elimination System (NPDES) permits for the discharge of pollutants to navigable waters of the U.S. from any point source. In 1987, the CWA was amended to require that the EPA establish regulations for the permitting of municipal and industrial stormwater discharges under the NPDES permit program. The EPA published final regulations regarding stormwater discharges on November 16, 1990. The regulations require that municipal storm sewer system discharges to surface waters be regulated by a NPDES permit. NPDES permits are issued under the CWA, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.).

Federal Emergency Management Agency (FEMA)

FEMA, a former independent agency that became part of the new Department of Homeland Security in March 2003, is tasked with responding to, planning for, recovering from and mitigating against disasters. Formed in 1979 to merge many of the separate disaster-related responsibilities of the federal government into one agency, FEMA is responsible for coordinating the federal response to floods, earthquakes, hurricanes, and other natural or human created disasters and providing disaster assistance to states, communities and individuals. The Federal Insurance and Mitigation Administration (FIMA) within FEMA is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that provide assistance for mitigating future damages from natural hazards. Established in 1968 with the passage of the National Flood Insurance Act, the NFIP is a federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the federal government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the federal government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods.

STATE FRAMEWORK

Waters of the State consist of all surface water or groundwater, including saline waters, within the boundaries of the State of California.

California Toxics Rule

Because California had not established a complete list of acceptable water quality criteria, the EPA (under the authority of the CWA) established numeric water quality criteria in the form of the California Toxics Rule (CTR) (40 CFR 131.38), which was finalized May 18, 2000. CTR covers potentially toxic constituents in receiving waters with human health or aquatic life designated uses.

Porter-Cologne Water Quality Control Act

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). The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) grants the State Water Resources Control Board (SWRCB) and each of the nine Regional Water Quality Control Boards (RWQCBs) power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the CWA. The applicable RWQCB for the Project area is the Central Valley Regional Water Quality Control Board (CVRWQCB). Under the Porter-Cologne Act, the SWRCB and RWQCBs have the authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Central Valley Regional Water Quality Control Plan (Basin Plan)

As required by the California Water Code (Section 13240) and supported by the CWA, each RWQCB must formulate and adopt a water quality plan (Basin Plan) for its region. The 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 CWA, 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 water quality standards. 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 needed to meet the beneficial uses, 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 Porter-Cologne Act, California Water Code and the CWA.

Non-Point Source Management Plan (SWRCB Resolution No. 88-123)

In addition to the Basin Plan, a number of water quality control plans and policies adopted by the SWRCB direct the RWQCBs actions. In 1988, the SWRCB adopted the Nonpoint Source Management Plan, which established the framework for statewide nonpoint source activities. Four of the six statewide objectives and implementation strategies to manage nonpoint source problems are included in the plan. Nonpoint source pollution comes from many diffuse sources including agriculture (pesticides, herbicides), urban runoff (construction sites, roads, industry, and residential areas), marinas and boating, hydromodification and mining.

NPDES General Permit for Stormwater Discharges Associated with Construction Activity

As described previously, NPDES permits are required for discharges of pollutants to navigable waters of the U.S. These waters consist of surface waters such as, lakes, rivers, streams, bays, the ocean, dry stream beds, wetlands and storm sewers that are tributary to any surface water body.

The RWQCB issues NPDES permits in lieu of direct issuance by the EPA, subject to review and approval by the EPA Regional Administrator (EPA Region 9 for the proposed Project). The terms of these NPDES permits implement pertinent provisions of the CWA 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 CWA'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 California Water Code.

There are approximately 1,941 industrial permits and over 4,240 construction permits in effect in the Central Valley Region.[2] 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. 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 RWQCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB issues general permits for stormwater runoff from 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.

Construction activities disturbing one acre or more of land are subject to the permit requirements of the NPDES program. The applicant must file a Notice of Intent (NOI) to seek coverage under the statewide General Construction Activity Stormwater Permit (General Permit) prior to the beginning of construction and prepare and maintain a Stormwater Pollution Prevention Plan (SWPPP) per city and state ordinances. The NOI is submitted to the Division of Water Quality of the SWRCB.

On September 2, 2009, the SWRCB adopted a new General Permit (Order No. 2009-0009-DWQ) that has superseded the existing General Permit effective July 1, 2010. The following is a summary of the main differences between the former General Permit and the new General Permit:

- Risk-Based Permitting Approach: The new CGP establishes three levels of risk possible for a construction site. Risk is calculated in two parts: (1) Project Sediment Risk, and (2) Receiving Water Risk.
- Minimum Requirements Specified: The new CGP imposes more minimum Best Management Practices (BMPs) and requirements that were previously only required as elements of the SWPPP or were suggested by guidance.
- Technology-Based Numeric Action Levels: The new CGP includes NALs [numeric action levels] for pH and turbidity.
- Technology-Based Numeric Effluent Limitations: The new CGP contains daily average NELs [numeric effluent limitations] for pH during any construction phase where there is a high risk of

[2] State of the Central Valley Region - 2009, Pamela Creedon, Executive Officer of the Central Valley Regional Water Quality Control Board, http://www.swrcb.ca.gov/rwqcb5/board_info/exec_officer_reports/ state_of_cvrwqcb_oct_2009.pdf, accessed November 3, 2010.

pH discharge and daily average NELs turbidity for all discharges in Risk Level 3. The daily average NEL for turbidity is set at 500 NTU [turbidity] to represent the minimum technology that sites need to employ (to meet the traditional Best Available Technology Economically Achievable (BAT)/Best Conventional Pollutant Control Technology (BCT) standard) and the traditional, numeric receiving water limitations for turbidity.

- Project Site Soil Characteristics Monitoring and Reporting: The new CGP provides the option for dischargers to monitor and report the soil characteristics at their project location. The primary purpose of this requirement is to provide better risk determination and eventually better program evaluation.
- Effluent Monitoring and Reporting: The new CGP requires effluent monitoring and reporting for pH and turbidity in storm water discharges. The purpose of this monitoring is to determine compliance with the NELs and evaluate whether NALs included in this General Permit are exceeded.
- Receiving Water Monitoring and Reporting: The new CGP requires some Risk Level 3 dischargers to monitor receiving waters and conduct bioassessments.
- Post-Construction Storm Water Performance Standards: The new CGP specifies runoff reduction requirements for all sites not covered by a Phase I or Phase II MS4 NPDES permit, to avoid, minimize and/or mitigate post-construction storm water runoff impacts.
- Rain Event Action Plan: The new CGP requires certain sites to develop and implement a Rain Event Action Plan (REAP) that must be designed to protect all exposed portions of the site within 48 hours prior to any likely precipitation event.
- Annual Reporting: The new CGP requires all projects that are enrolled for more than one continuous three-month period to submit information and annually certify that their site is in compliance with these requirements. The primary purpose of this requirement is to provide information needed for overall program evaluation and pubic information.
- Certification/Training Requirements for Key Project Personnel: The new CGP requires that key personnel (e.g., SWPPP preparers, inspectors, etc.) have specific training or certifications to ensure their level of knowledge and skills are adequate to ensure their ability to design and evaluate project specifications that will comply with General Permit requirements.
- Rainfall Erosivity Waiver: The new CGP includes the option allowing a small construction site (>one and <five acres) to self-certify if the rainfall erosivity value (R value) for their site's given location and time frame compute to be less than or equal to five.
- Linear Underground/Overhead Projects: The new CGP includes requirements for all Linear Underground/Overhead Projects (LUPs).

LOCAL FRAMEWORK

City of Tracy General Plan

The City's General Plan contains policies related to water quality, groundwater, drainage, flooding and dam failure. The Conservation Element contains a policy to control discharges of nonpoint source pollution such as urban runoff and construction site runoff to receiving waters. This policy also states that the City should be prepared to respond to upcoming regulatory requirements for storm water discharge permits. Policies in the Public Facilities and Services Element and the Conservation Element address the protection of the groundwater basin from overdraft and groundwater supplies from water quality degradation. The Land Use Element encourages urban development that is adjacent to existing City limits. Policies in the Public Facilities and Services Element require that planned development provide effective storm drainage facilities in accordance with existing design standards, meet the requirements of

the existing Storm Drainage Master Plan and integrate with bike paths, sidewalks and landscaping. These policies minimize new development in locations that could alter drainage patterns or stream alignments by focusing development in areas already impacted by urban development and away from remaining natural areas. The Safety Element includes policies to provide flood protection for existing and new development. To minimize risks associated with potential dam failure, the Safety Element directs the City to coordinate with San Joaquin County to inspect and repair area levees in the event of seismic activity.

City of Tracy Municipal Code

Chapter 11.32 of the City Municipal Code (Storm and Surface Water Management Enterprise and Utility) imposes a monthly storm drainage fee on each developed parcel within the City to pay for the operation, maintenance and replacement of the existing and future City storm drainage facilities. Chapter 11.34 (Stormwater Management and Discharge Control) specifies restrictions on discharges to the City's stormwater conveyance system; enables the City to establish fees for discharges into the City's stormwater conveyance system; and identifies specific stormwater requirements for construction activity. In addition, Chapter 11.34 provides enforcement powers to implement the provisions of the Chapter, including civil remedies (emergency orders and abatements), criminal penalties (misdemeanors, arrest and citation) or administrative citations. Chapter 9.52 (Floodplain Regulations) includes methods and provisions for restricting or prohibiting uses which are dangerous to health, safety and property due to water hazard or which result in damaging increases in flood height or velocities and require that all new construction and substantial construction pertaining to buildings have the lowest floor, including basement, elevated to or above the base flood elevation.

City of Tracy Groundwater Management Policy

The City adopted a Groundwater Management Policy in 2001. As noted previously, the policy limits the City's maximum annual groundwater extraction rate to 9,000 af/yr. Groundwater extraction monitoring conducted by the City indicates that the City's pumping is not adversely affecting groundwater levels or water quality.

City of Tracy Storm Drainage Master Plan

The City's currently adopted Storm Drainage Master Plan (SDMP) was completed in 1994. It states that open channels, detention ponds and integral components of the City's storm drainage facilities must be sized to accommodate a 100-year storm event. This is referred to as "100-year design capacity." Facilities that are not considered integral must be designed to accommodate the 10-year storm event. Since the adoption of the 1994 SDMP, development conditions in the City have changed substantially. As new development projects have arisen, the City has supplemented its 1994 SDMP with a number of technical reports on storm drainage that include additional information and policy direction. The City has recently updated its SDMP and released a public review draft of the document that has not yet been adopted (City of Tracy Citywide Storm Drainage Master Plan – Final Draft, September 2010). Since the updated SDMP has not been officially adopted by the City, nor have the requisite public hearings been held regarding its adoption, any information from the updated SDMP discussed in this EIR is provided for informational purposes only, as well as to provide context for the update process.

The updated SDMP includes hydrologic and hydraulic analyses; a conceptual plan for new storm drainage infrastructure needed to serve new development and existing development areas; opinions of probable cost for new and upgraded storm drainage infrastructure; drainage policies; and documentation regarding existing conditions, facilities, studies, regulations and agreements. The intention of the updated SDMP is to provide guidelines for the identification of storm drainage facilities needed to serve future land

development projects under the buildout condition of the City's SOI (excluding Tracy Hills) based on the assumptions of the City General Plan (as supplemented by additional land use assumptions provided by City staff) and to identify storm drainage facility upgrades needed to correct existing deficiencies. It also serves as a reference document for existing storm drainage facilities and their functional characteristics.

The updated SDMP recommends new master plan level storm drainage facilities be sized based on the following criteria:

- Detention basins: 100-year 24-hour storm
- Detention basin pump stations (when needed): provide the desired function and attenuation during the 100-year 24-hour storm
- Open channels, channel parkways, and greenbelt parkways: 100-year 24-hour storm
- Underground storm drains: 100-year 24-hour storm in new development areas and in existing development areas served by 100-year 24-hour storm capacity systems; 10-year 24-hour storm in existing development areas served by 10-year 24-hour storm capacity systems

The updated SDMP recommends the construction of a number of storm drainage facilities to serve the future buildout of the City's SOI. According to the updated SDMP, new development projects would be required to construct elements of the master plan infrastructure that have alignments that pass through them or extend along their project boundaries. The cost of construction of these master plan elements may be offset against other drainage funding requirements applicable to each project (such as drainage impact fees) or may be classified as eligible for future reimbursements within time frames to be determined by the City. In some instances, the City may require or may accept the construction of offsite facilities or interim versions of master planned facilities as appropriate.

The updated SDMP does not identify any master plan infrastructure improvements that would be required to serve the Project site with the exception of storm drains that would connect with existing or proposed major elements of the Westside Channel system.

City of Tracy Stormwater Management Program

The City's Storm Water Management Plan (SWMP) establishes BMPs to limit the discharge of pollutants into the City storm drainage system to the Maximum Extent Practicable (MEP). A total of 41 BMPs are contained in the SWMP. The purpose of the program is to meet the terms of General Permit Number CAS000004, Water Quality Order No. 2003-00005-DWQ, issued April 30, 2003. As required by the permit, the SWMP includes the following six minimum control measures (MCMs):

- Public Education and Outreach on Storm Water Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post-Construction Storm Water Management in New Development
- Redevelopment and Pollution Prevention/Good Housekeeping for Municipal Operations

Implementation of these MCMs is expected to result in significant reductions of pollutants discharged into receiving water bodies. The intention of the SWMP is that it be a living document, with BMPs added

and deleted as new management practices arise and as management practices are found to not be effective.

City of Tracy Manual of Stormwater Quality Control Standards for New Development and Redevelopment

The City adopted a Manual of Stormwater Quality Control Standards for New Development and Redevelopment (SWQC Manual) in August 2008. The SWQC Manual has the following goals:

- Assist new development in reducing urban runoff pollution to prevent or minimize water quality impacts
- Provide standards for developers, design engineers, agency engineers, and planners to use in the selection, design, and implementation of General Site Design Control Measures for Low Impact Design (LID) and appropriate site-specific source and treatment control measures
- Provide maintenance procedures to ensure that the selected control measures will be maintained to provide effective, long-term pollution control

LID is an approach to managing stormwater runoff that mimics the natural pre-development hydrology of a development site by using design techniques that infiltrate, filter, store, treat, evaporate and detain stormwater runoff close to the source. Almost all areas of site design can incorporate LID measures, including landscaping, open space, streetscapes, parking lots, sidewalks and medians. LID can be used in combination with traditional storm drain systems to infiltrate the smaller, more frequent storms, while allowing the larger storms to flow to pipes and basins for flood control (possibly with lower offsite costs than traditional non-LID systems). LID techniques offer great benefits to stormwater quality, especially for the smaller return interval storm events. LID will help reduce the amount of runoff entering the City's system and will aid in recharging ground water.

4.11.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant hydrology and water quality impact if it would:

- Violate any water quality standards or waste discharge requirements
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or offsite
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
- Otherwise substantially degrade water quality

- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation
- Place within a 100-year flood hazard area structures which could impede or redirect flood flows
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including as a result of the failure of a levee or dam
- Inundation by seiche, tsunami, or mudflow

AREAS OF NO PROJECT IMPACT

The following impacts are either not applicable to the Project or not reasonably foreseeable:

- Otherwise substantially degrade water quality

The proposed Project would not otherwise degrade water quality beyond the impacts discussed in this section. Therefore, no further water quality impacts would result.

- Place housing or structures that could impede or redirect flood flows within a 100-year flood hazard zone as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation or expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam

According to FIRM map panel 06077C0590F, the Project site is entirely outside of the 100-year flood hazard zone. Moreover, the Project site is not located within a dam inundation area, nor is it located in an area that would be subject to flooding as a result of a levee failure. Because the Project site is not prone to flooding, the Project would not expose people, structures or facilities to flood hazards.

- Inundation by seiche, tsunami or mudflow

As described previously, the proposed Project would not be at risk from inundation by seiche, tsunamis or mudflows for the following reasons: the City is not located near areas likely to be affected by seiche flooding; the Project site is located inland and could not be affected by a tsunami; and the Project site is not near any physical or geologic features that would pose a mudflow hazard, such as a volcano or hillsides.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Water Quality/Waste Discharge

4.11-1 THE PROPOSED PROJECT COULD VIOLATE WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

Future construction activities associated with the proposed Project could negatively affect the water quality of surface waters. Grading and other earthmoving activities during construction would expose soils, which could be eroded and deposited into downstream receiving waters. This in turn would increase the amount of sediment and turbidity in these water bodies, which could harm aquatic life. Additionally,

chemicals or fuels could accidentally spill and be washed into receiving waters. The accidental introduction of toxic compounds into surface waters could adversely alter water chemistry.

Future development within the Project site would be required to comply with state and local water quality regulations designed to control erosion and protect water quality during construction. This includes compliance with the requirements of the NPDES General Permit. The General Permit would require preparation and implementation of a SWPPP. The SWPPP must include erosion and sediment control BMPs that would meet or exceed measures required by the General Permit, as well as BMPs that control hydrocarbons, trash and debris and other potential construction-related pollutants. Erosion control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. The General Permit requires a SWPPP to include a menu of BMPs to be selected and implemented based on the phase of construction and the weather conditions to effectively control erosion and sediment, as well as proper handling of hydrocarbons, hazardous material and trash and debris onsite. Additionally, compliance with BMPs identified in the City's SWMP and with applicable City General Plan policies and municipal code requirements would ensure that water quality standards are met. Implementation of BMPs would prevent or minimize environmental impacts and ensure that discharges during the construction phase of the Project would not cause or contribute to the degradation of water quality in receiving waters, reducing construction-related water quality impacts to less than significant.

While sedimentation is the primary source of water quality impacts during construction, it would not be considered a significant issue during post-construction and operation because the Project site would be paved or landscaped, which would stabilize soils for the long term. However, after construction and during the life of the Project, the amount of impervious surfaces within the Project site would increase, which would increase the amount of stormwater runoff from the site and introduce pollutants into storm water that are typically associated with urban runoff. Pollutants would be washed by rainwater from rooftops, landscaped areas, parking areas and other impervious surfaces. The potential pollutants include chemicals from maintenance and cleaning supplies; landscape materials and products (pesticides, herbicides and fertilizers); oil, grease and heavy metals from automobiles; and petroleum hydrocarbons from fuels. The introduction of polluted Project site runoff into receiving waters would be a potentially significant impact. However, the proposed Project would be required to comply with applicable City policies and regulations, which would reduce this impact to less than significant.

In particular, the proposed Project would be required to implement BMPs identified in the City's SWMP, which have been identified to limit the discharge of pollutants from the City storm sewer system to the MEP. Moreover, the proposed Project would be required to comply with the general site design control measures for LID identified in the City's SWQC Manual, as well as appropriate site-specific source and treatment control measures. As described previously, LID is an approach to managing stormwater runoff that mimics the natural pre-development hydrology of a development site by using design techniques that infiltrate, filter, store, treat, evaporate and detain stormwater runoff close to the source. LID would help filter pollutants and provide effective water quality treatment. In addition, the Project would be required to comply with maintenance procedures identified in the City's SWQC Manual to ensure that selected control measures would be maintained to provide effective, long-term pollution control. Therefore, the proposed Project would have less than significant impacts on water quality during construction and throughout the life of the Project.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

Ground Water Supply/Recharge

4.11-2 THE PROPOSED PROJECT COULD SUBSTANTIALLY DEPLETE GROUNDWATER SUPPLIES OR INTERFERE SUBSTANTIALLY WITH GROUNDWATER RECHARGE SUCH THAT THERE WOULD BE A NET DEFICIT IN AQUIFER VOLUME OR A LOWERING OF THE LOCAL GROUNDWATER TABLE LEVEL.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

The proposed Project anticipates the construction of a maximum of 359,300 square feet of commercial (retail) uses on 33 net acres and 106,700 square feet of office uses on seven net acres. The City uses a standard water consumption rate of 1,785 gallons per acre per day (gpad) for commercial (retail) uses and 1,339 gpad for office uses. Thus, the commercial and office uses proposed by the Project would be expected to use 68,278 gallons per day of water. Tertiary-treated recycled water delivered from the City's wastewater treatment plant would be used to meet the Project's landscape irrigation needs. As such, the Project's landscape irrigation needs would not increase groundwater pumping or extraction. Potable water supplies from the City's water system (which include groundwater) would be used to meet the potable water demand of the Project's proposed commercial and office uses. The City's existing and additional (future, not yet firmly assured) potable water supplies are sufficient to meet the City's existing and projected future potable water demands, including the potable water demands associated with the proposed Project, to the year 2030 under all hydrologic conditions. Therefore, while the proposed Project would increase water demand, including demand for groundwater, it would not substantially deplete groundwater supplies, as the City has sufficient water supplies, including groundwater supplies, to serve the Project and the City's other existing and projected future water demands.

Groundwater recharge occurs primarily through percolation of surface waters through the soil and into the groundwater basin. The addition of significant areas of impervious surfaces can interfere with this natural groundwater recharge process. Upon Project buildout, the majority of the Project site would be covered with impervious surfaces, such as buildings, parking lots, sidewalks, driveways, etc. However, given the relatively large size of the groundwater basin in the Tracy area, the impervious surface area added as a result of the Project would not adversely affect the recharge capabilities of the local groundwater basin. Moreover, as identified under Impact 4.11-1, the Project would be required to implement LID features in compliance with the City's SWQC Manual, which would help reduce the amount of runoff from the Project site and aid in recharging ground water. Therefore, potential impacts on groundwater supply and recharge would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

Erosion/Siltation from Drainage Alteration

4.11-3 THE PROPOSED PROJECT COULD SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, WHICH COULD RESULT IN SUBSTANTIAL EROSION OR SILTATION ON OR OFFSITE.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

Future development would involve vegetation removal, grading, earth excavation and the construction of buildings, parking lots, sidewalks and driveways. These activities would alter existing drainage patterns and increase the potential for erosion and/or siltation. As previously discussed under Impact 4.11-1, standard erosion control measures (SWPPP) would be implemented to minimize the risk during construction. In addition, implementation of LID features and site-specific source and treatment control measures would reduce potential erosion and siltation impacts associated with altering existing drainage patterns during the life of the Project to a less than significant level.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

On or Offsite Flooding Impacts from Drainage Alteration

4.11-4 THE PROPOSED PROJECT COULD SUBSTANTIALLY ALTER THE EXISTING DRAINAGE PATTERN OF THE SITE OR AREA, WHICH COULD SUBSTANTIALLY INCREASE THE RATE OR AMOUNT OF SURFACE RUNOFF IN A MANNER THAT WOULD RESULT IN FLOODING ON OR OFFSITE.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Future development facilitated by the proposed Project would increase the amount of impervious surfaces onsite through the construction of new building pads, parking lots, sidewalks and structures, which would result in changes to the absorption rates, drainage patterns and the corresponding rate and amount of surface runoff. Such changes could potentially result in on or offsite flooding.

An onsite storm drain system, consisting of catch basins or curb inlets would need to be constructed to convey onsite surface water runoff to existing storm drainage infrastructure in the portion of the Westside Channel Watershed that serves the Project site. The primary elements of the existing storm drainage infrastructure consist of channel parkways, open channels, detention basins and large closed conduits. DET 10/11 would be the outfall for storm water runoff generated within the Project site. Although the City's updated SDMP has not been officially adopted by the City yet, it should be noted that the plan does not identify any master plan infrastructure improvements necessary to serve the buildout of the Project site with the exception of storm drains that would connect with existing or proposed major elements of the Westside Channel system. Regardless, BMPs and LID features, which would be required by the City's SWMP and SWQC Manual, would help reduce the velocity of flows and encourage infiltration before runoff enters the Westside Channel system. However, to further ensure that the increased stormwater runoff from the Project site does not exceed the conveyance and capacity of existing storm drainage infrastructure in the Westside Channel system, the proposed Project would be required to implement Mitigation Measure 4.11-4, which requires the preparation of a hydrology report that demonstrates adequate conveyance and capacity for surface runoff and if adequate capacity is not available, a detailed stormwater detention plan for the retention/detention of stormwater runoff on the Project site. Implementation of Mitigation Measure 4.11-4, in addition to compliance with the requirements of the City's SWMP and SWQC Manual and other City policies and regulations would reduce potential impacts on flooding from site alteration to less than significant.

Mitigation Measure:

4.11-4 Plans submitted for a grading permit shall include a detailed hydrology report. The report shall include calculations regarding the anticipated volume of stormwater runoff generated by the Project, and shall demonstrate that adequate stormwater conveyance and capacity is available in the existing Westside Channel system. Calculations shall be consistent with the current version of the City's Manual of Stormwater Quality Control Standards for New Development and Redevelopment. The hydrology report shall be subject to review and approval by the City Engineer.

If the hydrology report determines that the existing Westside Channel system does not have adequate stormwater conveyance and capacity to serve the Project site, then the Project applicant shall develop a detailed stormwater detention plan for the retention/detention of stormwater runoff on the Project site. The stormwater detention facilities shall be designed with adequate capacity to ensure that that stormwater generated on the Project site during a peak storm event is retained at a rate that would ensure that discharges from the site do not exceed pre-construction levels. All detention facilities shall be developed in conformance with the City's standards, including those identified in the City's Manual of Stormwater Quality Control Standards for New Development and Redevelopment. The plans and specifications of the proposed detention facilities shall meet the standards of the City of Tracy Development and Engineering Services Department as an adequate engineering product. The construction of stormwater detention facilities may be phased to correspond with development of the Project site over time, provided that adequate detention is provided at all times to ensure that runoff from the site does not exceed pre-construction levels.

Level of Significance After Mitigation: Less Than Significant Impact.

Storm Drainage System Capacity

4.11-5 THE PROPOSED PROJECT COULD CREATE OR CONTRIBUTE RUNOFF WATER THAT WOULD EXCEED THE CAPACITY OF EXISTING OR PLANNED STORMWATER DRAINAGE SYSTEMS OR PROVIDE SUBSTANTIAL ADDITIONAL SOURCES OF POLLUTED RUNOFF.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

As stated in the impact discussions above, the proposed Project would result in changes to absorption rates, drainage patterns and the corresponding rate and amount of surface runoff within the Project site. An onsite storm drain system would need to be constructed to convey onsite surface water runoff to the City's existing storm drainage system. The onsite system would be designed to carry stormwater at buildout of the Project site, and would be subject to City review to verify that it is designed to accommodate increased flows on the site, which would therefore reduce this potential impact to less than significant.

As described in previous impact analyses, with implementation of BMPs and LID features, which would be required by the City's SWMP and SWQC Manual; the preparation of a hydrology report that demonstrates adequate conveyance and capacity for surface runoff and if adequate capacity is not

available the preparation of a detailed stormwater detention plan for the retention/detention of stormwater runoff on the Project site (required by Mitigation Measure 4.11-4); as well as compliance with the requirements of the General Permit and other City policies and regulations, the proposed Project would not result in on or offsite flooding or increased amounts of polluted runoff. Therefore, impacts would be less than significant.

Mitigation Measure: Implement Mitigation Measure 4.11-4

Level of Significance After Mitigation: Less Than Significant Impact.

4.11.4 ANALYSIS OF CUMULATIVE IMPACTS

The analysis of cumulative hydrology and water quality impacts considers the larger context of future development of the City as envisioned by the City General Plan and relies upon the projections of the City General Plan and City General Plan Environmental Impact Report (EIR). Cumulative impacts on hydrology and water quality would result from incremental changes that degrade water quality or contribute to drainage and flooding problems within and immediately adjacent to the Project area and downstream of the Project area within the Sacramento/San Joaquin Delta. As discussed above, future development of the Project site would not result in any significant impacts with the implementation of mitigation measures. In addition, future development within the Project vicinity would be guided by the City General Plan, and associated planning and environmental documents. Each project would be subject to the City planning process. Impacts on hydrology and water quality would not be cumulatively considerable.

4.12 NOISE

The purpose of this section is to analyze Project-related noise source impacts onsite and to surrounding land uses. This section evaluates short-term construction-related impacts as well as long-term buildout operational conditions. Information in this section is based on the City of Tracy General Plan (City General Plan), City of Tracy Municipal Code, and traffic information contained in Section 4.14 (Transportation/Traffic). Refer to Appendix F (Noise Data) for the assumptions utilized in this analysis.

4.12.1 ENVIRONMENTAL SETTING

NOISE SCALES AND DEFINITIONS

Sound is described in terms of the loudness (amplitude) of the sound and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Decibels are based on the logarithmic scale. The logarithmic scale compresses the wide range in sound pressure levels to a more usable range of numbers in a manner similar to the Richter scale used to measure earthquakes. In terms of human response to noise, a sound 10 dBA higher than another is judged to be twice as loud, and 20 dBA higher four times as loud, and so forth. Everyday sounds normally range from 30 dBA (very quiet) to 100 dBA (very loud). Examples of various sound levels in different environments are illustrated on Figure 4.12-1 (Sound Levels and Human Responses).

Many methods have been developed for evaluating community noise to account for, among other things:

- The variation of noise levels over time
- The influence of periodic individual loud events
- The community response to changes in the community noise environment

Numerous methods have been developed to measure sound over a period of time (refer to Table 4.12-1, Noise Descriptors).

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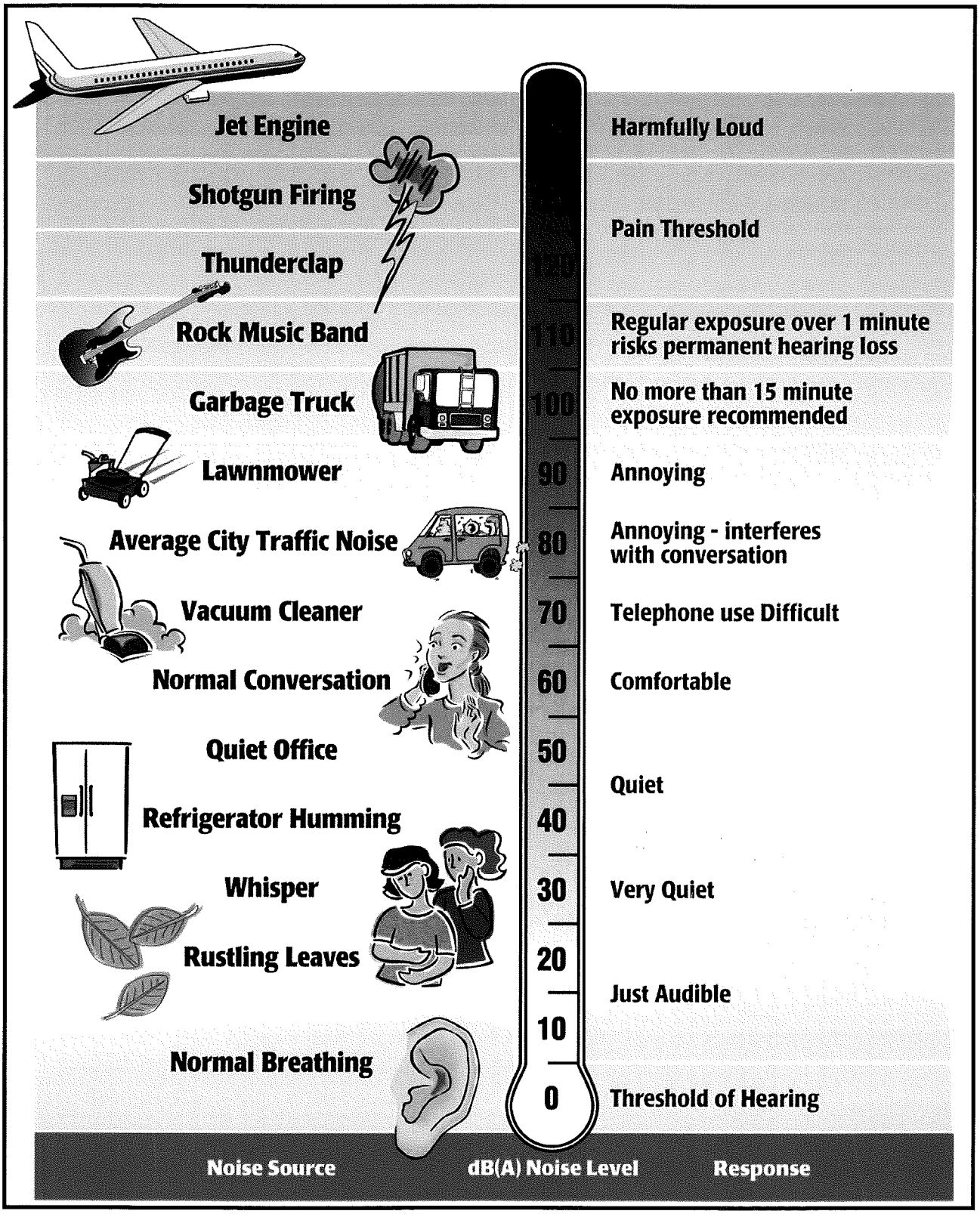

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Sound Levels and Human Responses

Figure 4.12-1

Table 4.12-1
Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measured sound to a reference pressure (20 micropascals).
A-Weighted Decibel (dBA)	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz).
Equivalent Sound Level (L_{eq})	The sound level containing the same total energy as a time varying signal over a given time period. The L_{eq} is the value that expresses the time averaged total energy of a fluctuating sound level.
Maximum Sound Level (L_{max})	The highest individual sound level (dBA) occurring over a given time period.
Minimum Sound Level (L_{min})	The lowest individual sound level (dBA) occurring over a given time period.
Community Noise Equivalent Level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments are +5 dBA for the evening, 7:00 p.m. to 10:00 p.m., and +10 dBA for the night, 10:00 p.m. to 7:00 a.m.
Day/Night Average (L_{dn})	The L_{dn} is a measure of the 24-hour average noise level at a given location. It was adopted by the U.S. Environmental Protection Agency (EPA) for developing criteria for the evaluation of community noise exposure. It is based on a measure of the average noise level over a given time period called the L_{eq}. The L_{dn} is calculated by averaging the L_{eq}'s for each hour of the day at a given location after penalizing the "sleeping hours" (defined as 10:00 p.m. to 7:00 a.m.), by 10 dBA to account for the increased sensitivity of people to noises that occur at night.
Exceedance Level (L_n)	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time (L_{01}, L_{10}, L_{50}, L_{90}, respectively) during the measurement period.

Source: Cyril M. Harris, *Handbook of Noise Control*, 1979.

HEALTH EFFECTS OF NOISE

Human response to sound is highly individualized. Annoyance is the most common issue regarding community noise. The percentage of people claiming to be annoyed by noise generally increases with the environmental sound level. However, many factors also influence people's response to noise. The factors can include the character of the noise, the variability of the sound level, the presence of tones or impulses, and the time of day of the occurrence. Additionally, non-acoustical factors, such as the person's opinion of the noise source, the ability to adapt to the noise, the attitude towards the source and those associated with it, and the predictability of the noise, all influence people's response. As such, response to noise varies widely from one person to another and with any particular noise, individual responses range from "not annoyed" to "highly annoyed."

When the noise level of an activity rises above 70 dBA, the chance of receiving a complaint is possible, and as the noise level rises, dissatisfaction among the public steadily increases. However, an individual's reaction to a particular noise depends on many factors, such as the source of the sound, its loudness relative to the background noise, and the time of day. The reaction to noise can also be highly subjective; the perceived effect of a particular noise can vary widely among individuals in a community.

The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The effects of noise on the community can be organized into six broad categories:

- Noise-Induced Hearing Loss
- Interference with Communication
- Effects of Noise on Sleep
- Effects on Performance and Behavior
- Extra-Auditory Health Effects
- Annoyance

Although it often causes discomfort and sometimes pain, noise-induced hearing loss usually takes years to develop. Noise-induced hearing loss can impair the quality of life through a reduction in the ability to hear important sounds and to communicate with family and friends. Hearing loss is one of the most obvious and easily quantified effects of excessive exposure to noise. While the loss may be temporary at first, it could become permanent after continued exposure. When combined with hearing loss associated with aging, the amount of hearing loss directly caused by the environment is difficult to quantify. Although the major cause of noise-induced hearing loss is occupational, substantial damage can be caused by non-occupational sources.

According to the U.S. Public Health Service, nearly 10 million of the estimated 21 million Americans with hearing impairments owe their losses to noise exposure. Noise can mask important sounds and disrupt communication between individuals in a variety of settings. This process can cause anything from a slight irritation to a serious safety hazard, depending on the circumstance. Noise can disrupt face-to-face communication and telephone communication, and the enjoyment of music and television in the home. It can also disrupt effective communication between teachers and pupils in schools, and can cause fatigue and vocal strain in those who need to communicate in spite of the noise.

Interference with communication has proved to be one of the most important components of noise-related annoyance. Noise-induced sleep interference is one of the critical components of community annoyance. Sound level, frequency distribution, duration, repetition and variability can make it difficult to fall asleep and may cause momentary shifts in the natural sleep pattern, or level of sleep. It can produce short-term adverse effects on mood changes and job performance, with the possibility of more serious effects on health if it continues over long periods. Noise can cause adverse effects on task performance and behavior at work, and non-occupational and social settings. These effects are the subject of some controversy, since the presence and degree of effects depends on a variety of intervening variables. Most research in this area has focused mainly on occupational settings, where noise levels must be sufficiently high and the task sufficiently complex for effects on performance to occur.

Recent research indicates that more moderate noise levels can produce disruptive after-effects, commonly manifested as a reduced tolerance for frustration, increased anxiety, decreased incidence of "helping" behavior, and increased incidence of "hostile" behavior. Noise has been implicated in the development or exacerbation of a variety of health problems, ranging from hypertension to psychosis. As with other categories, quantifying these effects is difficult due to the amount of variables that need to be considered

in each situation. As a biological stressor, noise can influence the entire physiological system. Most effects seem to be transitory, but with continued exposure some effects have been shown to be chronic in laboratory animals.

Annoyance can be viewed as the expression of negative feelings resulting from interference with activities, as well as the disruption of one's peace of mind and the enjoyment of one's environment. Field evaluations of community annoyance are useful for predicting the consequences of planned actions involving highways, airports, road traffic, railroads, or other noise sources. The consequences of noise-induced annoyance are privately held dissatisfaction, publicly expressed complaints to authorities, and potential adverse health effects, as discussed above. In a study conducted by the U.S. Department of Transportation, the effects of annoyance to the community were quantified. In areas where noise levels were consistently above 60 dBA CNEL, approximately nine percent of the community is highly annoyed. When levels exceed 65 dBA CNEL, that percentage rises to 15 percent. Although evidence for the various effects of noise have differing levels of certainty, it is clear that noise can affect human health. Most of the effects are, to a varying degree, stress related.

GROUND-BORNE VIBRATION

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity or acceleration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration amplitudes. PPV is defined as the maximum instantaneous peak or vibration signal, while RMS is defined as the square root of the average of the squared amplitude of the signal. PPV is typically used for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response. Typically, ground-borne vibration, generated by man-made activities, attenuates rapidly with distance from the source of vibration. Man-made vibration issues are, therefore, usually confined to short distances (i.e., 500 feet or less) from the source.

Both construction and operation of development projects can generate ground-borne vibration. In general, demolition of structures preceding construction generates the highest vibrations. Construction equipment such as vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible vibration during construction activities. Heavy trucks can also generate ground-borne vibrations that vary depending on vehicle type, weight and pavement conditions.

SENSITIVE RECEPTORS

Human response to noise varies widely depending on the type of noise, time of day and sensitivity of the receptor. The effects of noise on humans can range from temporary or permanent hearing loss to mild stress and annoyance due to such things as speech interference and sleep deprivation. Prolonged stress, regardless of the cause, is known to contribute to a variety of health disorders. Noise, or the lack of it, is a factor in the aesthetic perception of some settings, particularly those with religious or cultural significance. Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours. Table 4.12-2 (Sensitive Receptors) lists the sensitive receptors within one mile of the Project site.

Table 4.12-2
Sensitive Receptors

Type	Name	Distance from Project Site (feet)	Direction from Project Site
Residential	Residential Uses	140	North
		697	South
		390	Southwest
		1,600	East
		360	West
Schools	Kids Place Daycare and Preschool	1,356	South
	Freiler Middle School	3,960	East
Parks	Sports Park	710	East
	Mini Park	2,300	South
Religious Centers	Southwinds Church of Tracy	4,434	North

Source: Google Earth 2010. Sensitive Receptor populations utilized in this analysis are those within a 1-mile radius of the Project site.

AMBIENT NOISE MEASUREMENTS

In order to quantify existing ambient noise levels in the Project area, RBF Consulting conducted noise measurements on August 11, 2010. Table 4.12-3 (Noise Measurements) summarizes the noise measurements and Figure 4.12-2 (Noise Measurement Locations) provides the location of the measurements. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a 4189 pre-polarized freefield microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute for Type I (precision) sound level meters.

The noise measurement sites indicated in Table 4.12-3 are representative of typical existing noise exposure within and immediately adjacent to the Project site. Ten-minute measurements were taken at four locations, between 2:30 PM and 3:30 PM. Meteorological conditions were typical, with light wind speeds (0 to 5 miles per hour), low humidity and clear skies. Existing measured noise levels onsite range from approximately 54.2 Leq to 57.3 Leq. The highest onsite noise level measurement (57.0 dBA) was taken at the northeastern portion of the Project site along Grant Line Road.

Table 4.12-3
Noise Measurements

Site	Location	Time	L_{eq}	L_{10}	L_{50}	L_{90}
1	Northwestern corner of the Project site, near residential uses	2:32 PM	56.6	56.0	55.7	55.0
2	Northeastern corner of the Project site, near a residential use	2:56 PM	57.3	60.5	56.4	54.1
3	Southeastern corner of the Project site, near the Costco loading dock	3:12 PM	54.9	56.5	54.6	52.9
4	Central/southern portion of the Project site	3:29 PM	54.2	56.0	53.5	51.0

Source: Noise Monitoring Survey conducted by RBF Consulting, August 11, 2010.

Source: Google Earth (2010)

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Noise Measurement Locations

Figure 4.12-2

MOBILE NOISE SOURCES

The Project site is surrounded by agricultural land, residential areas and commercial uses. The agricultural land is located primarily to the north and east of the Project site, while the commercial and residential uses are located to the east and southeast. Vehicles using local roadways generate the majority of noise in the Project area. To assess the potential for Project-generated noise impacts, it is necessary to quantify the existing traffic-generated noise. Noise models were run using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108) together with several roadway and site parameters (refer to Table 4.12-4, Existing Traffic Noise Levels). These parameters determine the projected impact of vehicular traffic noise and include the roadway cross-section (e.g., number of lanes), roadway width, average daily traffic (ADT), vehicle travel speed, percentages of auto and truck traffic, roadway grade, angle-of-view and site conditions ("hard" or "soft"). The model does not account for ambient noise levels (i.e., noise from adjacent land uses) or topographical differences between the roadway and adjacent land uses. Noise projections are based on modeled vehicular traffic as derived from Section 4.14 (Transportation/Traffic).

Table 4.12-4
Existing Traffic Noise Levels

Roadway Segment	ADT	dBA @ 100 feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 Ldn Noise Contour	65 Ldn Noise Contour	70 Ldn Noise Contour
Grant Line Road					
Byron Road to Lammers Road	13,745	64.1	322	102	32
Lammers Road to Costco Driveway	13,545	63.7	318	100	32
Costco Driveway to Walmart Driveway	15,568	64.3	365	115	36
Walmart Driveway to Naglee Road	20,409	65.4	479	151	48
Naglee Road to I-205 Ramps	25,455	66.4	597	189	60
I-205 Ramps to Corral Hollow Road	22,386	65.7	525	166	52
East of Corral Hollow Road	21,909	65.7	513	162	51
Byron Road					
North of Grant Line Road	9,818	63.9	305	97	31
Grant Line Road to Lammers Road	7,750	62.9	241	76	24
Lammers Road to Corral Hollow Road	5,636	61.2	175	55	18
Corral Hollow Road					
North of Grant Line Road	7,773	62.1	242	77	24
Grant Line Road to Byron Road	19,409	66.0	603	191	60
South of Byron Road	23,500	67.0	731	231	73

Source: Traffic modeling is based upon data contained within Section 4.14 (Transportation/Traffic).

RAILROAD NOISE

According to the City General Plan, the Altamont Commuter Express (ACE) provides passenger rail service between Stockton and San Jose. The ACE Station for Tracy is located on Tracy Boulevard at Linne Road. There are three major rail lines that enter the City from the east, two of which merge and subsequently exit to the west. The rail lines are owned and operated by the Union Pacific Railroad (UPRR). The main line runs through south Tracy along Linne Road. This line is used both as an industrial (10 freights per day) and commuter (via ACE train service) rail.

The Project site is adjacent to the northwesterly main alignment, which travels along Byron Road and ties into the City of Martinez. This alignment extends north from Eleventh Street to I-205. These lines are currently owned by Union Pacific Corporation, which operates freight rail service through its UPRR

subsidiary. UPRR is the largest railroad in North America with service in over 23 states. The freight lines through Tracy provide connectivity from the west coast, including major ports such as Oakland, to all other areas of operation.

Trains intermittently generate noise levels that are significant along the railroad tracks. According to the City General Plan, Ldn noise levels exceed 60 dBA within approximately 260 feet of the primary freight and commuter railroad tracks. Moreover, train warning whistles can generate maximum noise levels of approximately 105 dBA at 100 feet and are audible throughout the community.

STATIONARY NOISE SOURCES

The primary sources of stationary noise in the Project vicinity are urban-related and rural-related activities (i.e., mechanical equipment, loading and unloading areas, parking lots, landscape maintenance, conversations [normal to loud], farming equipment and recreational areas) and residential activities (i.e., air conditioners, pool and spa equipment, landscape maintenance and conversations). Noise associated with these sources may represent a single event noise occurrence, short-term, or long-term/continuous noise.

4.12.2 REGULATORY SETTING

STATE FRAMEWORK

California Environmental Quality Act

CEQA was enacted in 1970 and requires that all known environmental effects of a project be analyzed, including environmental noise impacts. Under CEQA, a project has a potentially significant impact if the project exposes people to noise levels in excess of standards established in the local general plan or noise ordinance. Additionally, under CEQA, a project has a potentially significant impact if the project creates a substantial increase in the ambient noise levels in the project vicinity above levels existing without the project. If a project has a potentially significant impact, mitigation measures must be considered.

California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of their comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of "normally acceptable", "conditionally acceptable" and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 CNEL and "conditionally acceptable" up to 70 CNEL. Multiple-family residential uses are "normally acceptable" up to 65 CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries and churches are "normally acceptable" up to 70 CNEL, as are office buildings and business, commercial and professional uses.

LOCAL FRAMEWORK

City of Tracy General Plan

The City General Plan includes the following goals, objectives, policies and actions regarding noise that are applicable to the proposed Project:

Goal N-1	A Citizenry protected from excessive noise.
Objective N-1.1	Ensure appropriate exterior and interior noise levels for new land uses.
Policy P1	Noise sensitive land uses shall not be located in areas with noise levels that exceed those considered normally acceptable for each land use unless measures can be implemented to reduce noise to acceptable levels.
Policy P2	Land uses shall require appropriate interior noise environments when located in areas adjacent to major noise generators.
Policy P8	Measures to attenuate exterior and/or interior noise levels to acceptable levels shall be incorporated into all development projects. Acceptable, conditionally acceptable and unacceptable noise levels are presented in Figure 9-3 [of the General Plan Noise Element].
Objective N-1.2	Control sources of excessive noise.
Policy P1	The City's Noise Ordinance, as revised from time to time, shall prohibit the generation of excessive noise.
Policy P2	Mitigation measures shall be required for new development projects that exceed the following criteria: • Cause the Ldn at noise-sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level. • Cause the Ldn at noise-sensitive uses to increase 5 dB or more and remain "normally acceptable." • Cause new noise levels to exceed the City of Tracy Noise Ordinance limits.
Policy P3	Pavement surfaces that reduce noise from roadways should be considered as paving or repavement opportunities arise.
Policy P4	All construction in the vicinity of noise sensitive land uses, such as residences, hospitals, or convalescent homes, shall be limited to daylight hours or 7:00 AM to 7:00 PM. In addition, the following construction noise control measures shall be included as requirements at construction sites to minimize construction noise impacts: • Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. • Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area. • Utilize "quiet" air compressors and other stationary noise sources where technology exists.
Action A1	Enforce Section 27007 of the California Motor Vehicle Code that prohibits amplified sound that can be heard 50 or more feet from a vehicle.

Action A2	Enforce Section 27150 of the California Motor Vehicle Code that addresses excessive exhaust noise.
Objective N-1.3	Consider noise issues in the Development Review process.
Policy P1	Development projects shall be evaluated for potential noise impacts and conflicts as part of the Development Review process.
Policy P2	Significant noise impacts shall be mitigated as a condition of project approval.
Policy P3	New development projects shall have an acoustical specialist prepare a noise analysis with recommendations for design mitigation if a noise-producing project is proposed near existing or planned noise-sensitive uses.
Policy P4	Proposed noise sensitive projects within noise-impacted areas shall submit acoustical studies and provide necessary mitigation from noise.
Policy P5	Site design techniques shall be considered as the primary means to minimize noise impacts as long as they do not conflict with the goals of the Community Character Element. Techniques include: • Designing landscaped building setbacks to serve as a buffer between the noise source and receptor. • Placing noise-tolerant land uses, such as parking lots, maintenance facilities, and utility areas between the noise source, such as highways and railroad tracks, and receptor. • Orienting buildings to shield noise sensitive outdoor spaces from a noise source. • Locating bedrooms or balconies on the sides of buildings facing away from noise sources. • Utilizing noise barriers (e.g., fences, walls, or landscaped berms) to reduce adverse noise levels in noise-sensitive outdoor activity areas.
Policy P6	The City shall seek to reduce impacts from groundborne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g., residences) are sited at least 100 feet from the centerline of the railroad tracks whenever feasible. The development of vibration-sensitive buildings within 100 feet from the centerline of the railroad tracks would require a study demonstrating that ground borne vibration issues associated with rail operations have been adequately addressed (i.e., through building siting or construction techniques).

In addition, the City General Plan includes the noise standards for different land uses within the City's jurisdiction. According to Figure 9-3 of the City General Plan, the "normally acceptable" noise level for single-family residential units and institutional land uses such as schools, libraries, museums, hospitals, personal care, meeting halls and churches is 60 dBA Ldn. For multi-family residential, hotels, motels and outdoor recreational areas a 65 dBA Ldn is "normally acceptable." For office buildings, commercial and professional land uses, a "normally acceptable" noise level is 75 dBA Ldn.

City of Tracy Municipal Code

In addition to the standards set forth within the City General Plan, Title 4.12, Article 9, *Noise Control Ordinance*, of the City's Municipal Code provides the following General Sound Level Limits:

- Residential Districts have a noise limit of 55 dBA
- Commercial Districts have a noise limit of 65 dBA
- Industrial Districts have a noise limit of 75 dBA
- Agricultural Districts have a noise limit of 75 dBA
- Aggregate Mineral Overlay Zone have a noise limit of 75 dBA

When property lines form the joint boundary of two district zones, the ordinance states that the sound level limit shall be the arithmetic mean of the limit applicable to each of the two zones. The City's Municipal Code, Title 4.12, Article 9, *Noise Control Ordinance*, provides the following construction and operational noise standards:

Construction Noise Prohibition

The operation of pile drivers, hammers, etc. between the hours of 10:00 PM. and 7:00 AM 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.

Business and Residential Relationships

1. Delivery vehicles shall have their engines turned off when stationary during regular business hours (6:00 AM to 11:00 PM).
2. It is unlawful for stores to be loading, unloading, opening or other handling of boxes, crates, containers, building materials, garbage cans, other similar objects and trash compactor operations between the hours of 10:00 PM and 7:00 AM in an area between a business and residential in such a manner to cause a noise disturbance across a residential property line or at any time to violate the general sound level limits.
3. Store deliveries by motorized refrigeration systems shall not be left running between the hours of 10:00 PM and 7:00 AM within seventy-five feet of a residential zone, residential use, or sleeping quarters.

Note that the noise ordinance requirements cannot be applied to mobile noise sources, such as heavy trucks, when traveling on public roadways. Federal and state laws preempt control of mobile noise sources on public roads and airports.

4.12.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant noise impact if it would:

- Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies

- Expose persons to or generate excessive ground borne vibration or ground borne noise levels
- Substantially permanently increase ambient noise levels in the project vicinity above levels existing without the project
- A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the project
- 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, expose people residing or working in the project site to excessive noise levels
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project site to excessive noise levels

Significance of Changes in Traffic Noise Levels

If the ambient noise environment is quiet and the new noise source greatly increases the noise exposure, an impact may occur even though a criterion level might not be exceeded. The proposed Project would result in a significant impact for traffic noise levels if it would:

- Cause the Ldn at noise-sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level.
- Cause the Ldn at noise-sensitive uses to increase 5 dB or more and remain "normally acceptable."

Significance of Changes in Cumulative Traffic Noise Levels

The Project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds the threshold of perception (i.e., auditory level increase). The combined effect compares the "cumulative with project" condition to "existing" conditions. This comparison accounts for the traffic noise increase from the Project generated in combination with traffic generated by projects in the cumulative projects list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase:

Combined Effects: The cumulative with project noise level ("Long-Term Plus Project") causes the following:

- Cause the Ldn at noise-sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level.
- Cause the Ldn at noise-sensitive uses to increase 5 dB or more and remain "normally acceptable."

Although there may be a significant noise increase due to the proposed Project in combination with other related projects (combined effects), it must also be demonstrated that the Project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed Project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

Incremental Effects: The "Long-Term Plus Project" causes a 1 dBA increase in noise over the "Long-Term No Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded.

Vibration Impacts

With respect to ground-borne vibration from construction activities, the Federal Transit Administration (FTA) has adopted guidelines/recommendations to limit ground-borne vibration based on the age and/or condition of the structures that are located in close proximity to construction activity.

A technical discussion of construction activity-related vibration is provided in the FTA publication titled *Transit Noise and Vibration Impacts Assessment* (May 2006). As described therein, a ground-borne vibration level of 0.2 inch-per-second PPV should be considered as damage threshold criterion for structures deemed "fragile," and a ground-borne vibration level of 0.12 inch-per-second PPV should be considered as damage criterion for structures deemed "extremely fragile," such as historic buildings. With respect to structures that are considered "well engineered," a ground-borne vibration level of 2.0 inch-per-second PPV should be considered as damage criterion. The analysis has assumed a conservative threshold of 0.2 inch-per-second PPV.

POTENTIAL IMPACTS AND MITIGATION MEASURES

Short-Term Construction Impacts

4.12-1 GRADING AND CONSTRUCTION WITHIN THE PROJECT SITE COULD RESULT IN TEMPORARY NOISE IMPACTS TO NEARBY NOISE SENSITIVE RECEIVERS.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

Short-term noise impacts would be associated with grading, trenching, paving and building construction. Construction crew commutes and the transport of construction equipment and materials to the site would incrementally increase noise levels on access roads leading to the site. There would be a relatively high single-event noise exposure potential at a maximum level of 80 dBA L_{max} with trucks passing at 50 feet. However, the projected construction traffic would be nominal when compared to the existing traffic volumes on West Grant Line Road and Byron Road. Therefore, short-term construction-related worker commutes and equipment transport noise impacts would be less than significant.

Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated onsite. Therefore, noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise to be categorized by work phase. Table 4.12-5 (Maximum Noise Levels Generated by Construction Equipment) indicates the anticipated noise levels of construction equipment based on a distance of 50 feet between the equipment and noise receptor. The site preparation phase, which includes grading of the site, tends to generate the highest noise levels. Earthmoving and compacting equipment includes excavating machinery such as backfillers, bulldozers, draglines, front loaders, compactors, scrapers and graders. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three or four minutes at lower power

settings. The noise levels presented in Table 4.12-5 are based on the quantity, type and Acoustical Use Factor for each type of equipment that is anticipated to be used.

Table 4.12-5
Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Acoustical Use Factor[1]	L_{max} at 50 Feet (dBA)
Cement/Mortar Mixer	40	79
Concrete/Industrial Saw	20	90
Crane	16	81
Dozer	40	82
Excavator	40	81
Forklift	40	79
Generator	50	81
Grader	40	85
Other Equipment (greater than five horse power)	50	85
Paver	50	77
Roller	20	80
Tractor	40	84
Truck	40	80
Welder	40	73
Note: 1 – Acoustical use factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.		
Source: Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054)*, dated January 2006. Refer to Appendix F, Noise Data.		

The closest existing sensitive receptors in the vicinity of the Project site are residences located 140 feet to the north (across West Grant Line Road). The sensitive receptors would not be exposed to continuous close-range construction noise as the construction activities would occur throughout the Project site and not be concentrated or confined in the area directly adjacent to these receptors. Normally, construction activities occur in small construction zones with noise emanating from the various points in the area. In several instances, the sensitive receptors located in the Project vicinity are shielded from the construction areas by existing on and offsite buildings and vegetation.

As stated above, noise sensitive receptors near the construction site would, at times, experience excessive noise levels from construction activities; however, excessive construction-related noise levels generally would occur during the daytime hours only. The City Municipal Code prohibits construction or repair work between the hours of 10:00 PM and 7:00 AM. Additionally, implementation of the recommended mitigation (i.e., engine muffling, placement of construction equipment, and strategic stockpiling and staging of construction vehicles) and compliance with the City Municipal Code requirements, would serve to further reduce exposure to significant noise levels. Furthermore, vehicular traffic on West Grant Line Road, Byron Road and I-205 would mask a majority of the construction noise that would be perceived by the nearby sensitive receptors. Adherence to City General Plan, City Municipal Code Title 4.12, Article 9 (Noise Control Ordinance), would minimize any impacts from noise during construction and would ensure that impacts are reduced to a less than significant level.

Mitigation Measures: No mitigation measure is required.

Level of Significance After Mitigation: Not applicable.

Construction-Related Vibration Impacts

4.12-2 DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN TEMPORARY VIBRATION IMPACTS TO NEARBY SENSITIVE RECEPTORS DURING GRADING AND CONSTRUCTION ACTIVITIES.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

Construction activities can generate varying degrees of groundborne vibration, depending on the construction procedure and construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). Groundborne vibrations from construction activities rarely reach levels that damage structures.

The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 25 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. Table 4.12-6 (Typical Vibration Levels for Construction Equipment) identifies various vibration velocity levels for types of equipment that would operate during construction.

Table 4.12-6
Typical Vibration Levels for Construction Equipment

Equipment	Approximate Ground Velocity in Decibels at 25 feet (inches/second)	Approximate Ground Velocity in Decibels at 50 feet (inches/second)
Pile Driver (impact)	104	98
Large Bulldozer	87	81
Loaded Trucks	86	80
Jackhammer	79	73
Small Bulldozer	58	52
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006.		
Notes: Root mean square amplitude ground velocity in decibels (VdB) referenced to 1 micro-inch/second.		

Groundborne vibration would attenuate at a rate of approximately 6 VdB per doubling of distance. The groundborne vibration generated during construction activities would primarily impact existing sensitive uses that are located adjacent to or within the vicinity of specific projects. Based upon the information provided in Table 4.12-6, vibration levels could reach up to 87 VdB for typical construction activities (and up to 104 VdB if pile driving activities were to occur) at sensitive uses located within 25 feet of construction. However, no pile driving activities would take place during Project construction. Therefore, impacts to the generation and/or exposure of persons or structures to excessive groundborne vibration would be less than significant.

Mitigation Measure: No mitigation measure is required.

Level of Significance After Mitigation: Not applicable.

Onsite Long-Term Operational Impacts

4.12-3 IMPLEMENTATION OF THE PROPOSED PROJECT COULD RESULT IN AN INCREASE IN AMBIENT NOISE LEVELS DUE TO OPERATIONAL NOISE IMPACTS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Implementation of the proposed Project would create new noise sources. The major noise sources associated with development of commercial/office uses that may impact nearby sensitive receptors include the following:

- Mechanical equipment (i.e., trash compactors, air conditioners, etc.)
- Slow moving delivery/supply trucks, approaching and leaving the loading docks
- Activities at the loading docks (i.e., maneuvering and idling trucks, banging and clanging of equipment)
- Parking lots (i.e., car door slamming, car radios, engine start-up and car pass-by)
- Landscape maintenance

Although several noise sources would be introduced, many of them would operate for only very brief time periods, such as delivery truck movements, trash compactors and parking lot sweepers. These types of sources usually do not operate concurrently. Other noise sources, such as air conditioning equipment, parking lot traffic and loading dock activities, operate for comparatively longer periods of time. Further, it is noted that the projected noise levels presented below do not account for any noise attenuation due to existing walls, berms, intervening structures or topography.

Mechanical Equipment

Mechanical equipment (heating, ventilation and air conditioning [HVAC] units) would be located throughout the Project site in the proposed commercial and office uses. These units typically generate 55 dBA at 50 feet from the source. In consideration of this noise estimate and the location of the noise sensitive receptors (i.e., residential uses), noise generated by mechanical equipment on the site could exceed the City's noise standard unless mitigated. Compliance with City General Plan policies and Municipal Code requirements would reduce noise impacts from mechanical equipment. Noise levels from mechanical equipment would be further reduced with implementation of Mitigation Measure 4.12-3, which may require orientation of equipment away from any sensitive receptors, proper selection of equipment and installation of equipment with proper acoustical shielding, if such measures would be necessary to comply with the City's noise standard. Thus, impacts would be less than significant.

Slow-Moving Trucks (Deliveries) and Loading Docks

The maximum noise levels of slow-moving heavy and small trucks range between 70 and 73 dBA at 50 feet. Noise sources at loading docks may include maneuvering and idling trucks, truck refrigeration units, forklifts, banging and clanging of equipment (i.e., hand carts and roll-up doors), noise from public address

systems and voices of truck drivers and employees. The maximum noise level associated with loading docks is typically 73 dBA at 50 feet.

The final locations of loading docks have not been determined. Loading docks would be designed per the final end users, and configurations may vary. It should be noted that the closest residential uses are located within unincorporated San Joaquin County and would be subject to the San Joaquin County Noise Ordinance. The San Joaquin County Noise Ordinance (Section 9-1025.9 of the County Code) provides a daytime (7:00 AM to 10:00 PM) limit of 70 dBA Lmax and nighttime (10:00 PM to 7:00 AM) limit of 65 dBA Lmax. Based on the maximum noise level of 73 dBA at 50 feet, noise levels from loading docks would be 64.1 dBA at the closest residential uses, which is below the County's limits. Therefore, noise impacts from loading docks would be less than significant.

Parking Areas

Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standard, which are based on a time-averaged scale such as the CNEL or Ldn scale. Noise would primarily remain onsite and would be intermittent (during peak-events). However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys may be an annoyance to adjacent noise-sensitive receptors. Estimates of the maximum noise levels associated with some parking lot activities are presented in Table 4.12-7 (Maximum Noise Levels Generated by Parking Lots). Conversations in parking areas may also be an annoyance to adjacent sensitive receptors.

Table 4.12-7
Maximum Noise Levels Generated by Parking Lots

Noise Source	Maximum Noise Levels @ 50 feet from Source
Car door slamming	63 dBA
Car engine starting	60 dBA
Car accelerating	55 dBA
Car engine idling	61 dBA
dBA = A-weighted decibel.	
Source: Weiland Associates, 2002.	

Most of the noise generated in the future parking lot(s) associated with the proposed Project would be at a distance of 140 feet or more from the nearest sensitive receptor located to the north and 390 feet or more from the sensitive receptors located to the southwest. As shown in Table 4.12-8 (Parking Lot Noise Levels) during operation of the proposed Project, noise levels from parking lot activities would be 54.1 dBA at the nearest sensitive receptor to the north and 45.2 dBA at the next closest sensitive receptors to the southwest. Noise associated with parking lot activities adjacent to the sensitive receptors to the north would not exceed the City's exterior noise standard of 60 dBA. Continuous activity would be needed in the parking lot directly adjacent to the existing residences from 7:00 AM until 10:00 PM to begin approaching the 63 dBA in the CNEL or Ldn noise scale. CNEL and Ldn measurements are time averaged over 24 hours and are appropriate for continuous noise sources such as traffic. Conversely, parking lot noise is more appropriately analyzed per L_{max}, L_{eq}, or L_n (refer to Table 4.12-1). As a result, although parking lots may result in peak noise instances of 63 dBA L_{eq}, the continuous noise level is not anticipated to exceed the City's noise standard, nor San Joaquin County's noise standard. Therefore, the surrounding sensitive receptors would not be exposed to excessive noise from parking areas. A less than significant impact would occur in this regard.

Table 4.12-8
Parking Lot Noise Levels

Description	Receptor Locations		Estimated Exterior Noise Level[2]	Estimated Interior Noise Level[3]	Threshold	Exceed Threshold?
	Direction	Distance (feet)[1]				
Operation						
Parking Lot	North[4]	140	54.1 dBA	34.1 dBA	60 dBA	***No***
	Southwest[4]	390	45.2 dBA	25.2 dBA	60 dBA	***No***

dBA = A-weighted decibel

Notes:

1 – Distance is from the nearest sensitive receptor to the Project site.

2 – Estimated parking lot activity noise level is calculated by applying a 6-dBA reduction per doubling distance to the noise profiles identified in Table 4.12-7. More precisely, the formula is as follows:

$$dBA2 = dBA1 + 10Log_{10} (d1/d2)^2$$

where:

dBA 2 = Estimated Parking Lot Activity Noise Level;
dBA1 = Reference noise level at 50 feet (from Table 4.12-7);
d1 = reference distance of 50 feet; and
d2 = Approximate Receptor Location Distance.

3 – A typical building can reduce noise levels by 20 dBA with the windows closed (United States Department of Housing and Urban Development, *The Noise Guidebook*, undated, page 14). This assumes all windows and doors are closed, thereby attenuating the exterior noise levels by 20 dBA.

4 – Sensitive receptors to the north and southwest are residences. Commercial districts have a noise limit of 60 dBA at a property line adjacent to a residential zone.

Landscape Maintenance

Development of the proposed uses would introduce new landscaping requiring periodic maintenance. Noise generated by a gasoline-powered lawnmower is estimated to be approximately 70 dBA at a distance of five feet. Maintenance activities would operate during daytime hours for brief periods of time and would increase ambient noise levels in the Project vicinity; however, gas lawnmower noise levels at the nearest residential property line would not typically exceed the City's 60 dBA noise standard. A less than significant impact is anticipated in this regard.

Mitigation Measure:

4.12-3 Prior to issuance of a building permit, the Project applicant shall demonstrate, to the satisfaction of the Development and Engineering Services Department, that site placement of stationary noise sources would not exceed the City's noise standard of 60 dBA at any adjacent residential district property line inside the City limits, or 65 dBA at an adjacent commercial property line.

Level of Significance After Mitigation: Less Than Significant Impact.

Offsite Long-Term Operational (Mobile Source) Impacts

4.12-4 TRAFFIC GENERATED BY THE PROPOSED PROJECT COULD SIGNIFICANTLY CONTRIBUTE TO EXISTING TRAFFIC NOISE IN THE AREA OR EXCEED THE CITY'S ESTABLISHED STANDARDS.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

Existing Traffic Noise

The following analysis compares the "Existing" to the "Existing Plus Project" condition. There are often circumstances in which an "Existing Plus Project" analysis would result in only a hypothetical comparison of impacts which would not occur. There may, for example, be circumstances in which a project is not expected to become operational for several years. During the period after the environmental analysis is prepared, and before the project becomes operational, there may be reason to believe that traffic conditions would change due to regional or area wide growth, or planned and funded traffic improvements, to name a few. In those instances, there may be reason to believe that an "Existing Plus Project" analysis would be less accurate than an analysis that takes into account the reasonably foreseeable interim changes in the environment, versus assuming static environmental conditions.

Project implementation would result in additional traffic on adjacent roadways, thereby increasing vehicular generated noise in the vicinity of the existing and proposed land uses. Traffic volumes were analyzed under the "Existing" and "Existing Plus Project" conditions. As previously discussed, significant impacts would occur when the Project causes the Ldn at noise sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level based on the City's land use compatibility criteria (refer to Section 4.12.2). An increase of 5 dB or more at noise-sensitive uses would be significant even if noise levels remain "normally acceptable."

According to Section 4.14 (Transportation/Traffic), the proposed Project would generate 15,977 daily vehicle trips. Table 4.12-9 (Existing Traffic Noise Levels) depicts the "Existing" noise scenario and the "Existing Plus Project" scenario. As indicated in Table 4.12-9, the proposed Project would not result in significant traffic noise increases.

Table 4.12-9
Existing Traffic Noise Levels

Roadway Segment	Existing Without Project		Existing With Project		Difference in dBA @ 100 feet from Roadway	Potentially Significant Impact
	ADT	dBA @ 100 Feet from Roadway Centerline	ADT	dBA @ 100 Feet from Roadway Centerline		
Grant Line Road						
Byron Road to Lammers Road	13,745	64.1	17,495	65.2	1.1	No
Lammers Road to Costco Driveway	13,545	63.7	17,818	64.9	1.2	No
Costco Driveway to Walmart Driveway	15,568	64.3	19,805	65.3	1.0	No
Walmart Driveway to Naglee Road	20,409	65.4	28,127	66.8	1.8	No
Naglee Road to I-205 Ramps	25,455	66.4	31,845	67.4	1.0	No
I-205 Ramps to Corral Hollow Road	22,386	65.7	24,900	66.2	0.5	No
East of Corral Hollow Road	12,909	63.5	15,000	64.1	0.6	No
Byron Road						
North of Grant Line Road	9,818	63.9	10,627	64.2	0.3	No
Grant Line Road to Lammers Road	7,750	62.9	8,777	63.4	0.5	No
Lammers Road to Corral Hollow Road	5,636	61.2	5,714	61.3	0.1	No
Corral Hollow Road						
North of Grant Line Road	7,773	62.1	8,082	62.2	0.1	No
Grant Line Road to Byron Road	19,409	66.0	21,200	66.4	0.4	No
South of Byron Road	23,500	67.0	25,591	67.3	0.3	No

Roadway Segment	Existing Without Project		Existing With Project		Difference in dBA @ 100 feet from Roadway	Potentially Significant Impact
	ADT	dBA @ 100 Feet from Roadway Centerline	ADT	dBA @ 100 Feet from Roadway Centerline		
Notes: ADT = average daily trips; dBA = A-weighted decibels.						
Source: Traffic modeling is based upon data contained within Section 4.14 (Transportation/Traffic).						

Near Term Traffic Noise

The "Near Term Without Project" and "Near Term With Project" were compared for 2015 conditions. In Table 4.12-10 (Near Term Traffic Noise Levels), the noise level (dBA at 100 feet from centerline) depicts what would typically be heard 100 feet perpendicular to the roadway centerline. As indicated in Table 4.12-10 under the "Near Term Without Project" scenario, noise levels at a distance of 100 feet from the centerline would range from approximately 61.8 dBA to 67.6 dBA. The highest noise levels under "Near Term Without Project" conditions would occur along Corral Hollow Road (south of Byron Road). Under the "Near Term With Project" scenario noise levels at a distance of 100 feet from the centerline would range from approximately 61.9 dBA to 67.9 dBA. The highest noise levels under future with Project conditions would occur along the same roadway segment as the "Near Term Without Project" scenario.

Table 4.12-10
Near Term Traffic Noise Levels

Roadway Segment	Near-Term Without Project		Near-Term With Project		Difference in dBA @ 100 feet from Roadway	Potentially Significant Impact
	ADT	dBA @ 100 Feet from Roadway Centerline	ADT	dBA @ 100 Feet from Roadway Centerline		
Grant Line Road						
Byron Road to Lammers Road	15,809	64.7	19,605	65.7	1.0	No
Lammers Road to Costco Driveway	15,768	64.3	24,009	66.1	1.8	No
Costco Driveway to Walmart Driveway	17,914	64.9	26,241	66.5	1.6	No
Walmart Driveway to Naglee Road	23,241	66.0	31,805	67.4	1.4	No
Naglee Road to I-205 Ramps	27,809	66.8	35,664	67.9	1.1	No
I-205 Ramps to Corral Hollow Road	24,309	66.1	27,982	66.7	0.6	No
East of Corral Hollow Road	14,873	64.1	16,964	64.6	0.5	No
Byron Road						
North of Grant Line Road	11,300	64.5	14,800	65.7	1.2	No
Grant Line Road to Lammers Road	9,041	63.5	9,927	63.9	0.4	No
Lammers Road to Corral Hollow Road	6,491	61.8	6,541	61.9	0.1	No
Corral Hollow Road						
North of Grant Line Road	8,936	62.7	9,300	62.8	0.1	No
Grant Line Road to Byron Road	22,332	66.6	23,664	66.9	0.3	No
South of Byron Road	27,036	67.6	29,118	67.9	0.3	No
Notes: ADT = average daily trips; dBA = A-weighted decibels.						
Source: Traffic modeling is based upon data contained within Section 4.14 (Transportation/Traffic).						

Table 4.12-10 also compares the "Near Term Without Project" scenario to the "Near Term With Project" scenario. The proposed Project would increase noise levels on the surrounding roadways by a maximum of 1.8 dBA along Grant Line Road (between Lammers Road and the Costco driveway). The Project

would not increase noise levels by 3 dBA or more. Therefore, noise levels resulting from the proposed Project would be less than significant.

Long Term Traffic Noise

Table 4.12-11 (Long Term Traffic Noise) compares the "Long Term Without Project" scenario to the "Long Term With Project" scenario. The proposed Project would increase noise levels on the surrounding roadways by a maximum of 0.8 dBA along Grant Line Road (between the Costco driveway and the Walmart driveway). The Project would not increase noise levels by 3 dBA or more. Therefore, noise levels resulting from the proposed Project would be less than significant.

Table 4.12-11
Long-Term Traffic Noise Levels

Roadway Segment	Long-Term Without Project		Long-Term With Project		Difference in dBA @ 100 feet from Roadway	Potentially Significant Impact
	ADT	dBA @ 100 Feet from Roadway Centerline	ADT	dBA @ 100 Feet from Roadway Centerline		
Grant Line Road						
Byron Road to Lammers Road	24,682	66.7	28,855	67.4	0.7	No
Lammers Road to Costco Driveway	31,500	67.3	35,036	67.8	0.5	No
Costco Driveway to Walmart Driveway	23,268	66.0	28,118	66.8	0.8	No
Walmart Driveway to Naglee Road	30,814	67.2	35,436	67.8	0.6	No
Naglee Road to I-205 Ramps	38,591	68.2	41,782	68.6	0.4	No
I-205 Ramps to Corral Hollow Road	24,077	66.0	26,373	66.4	0.4	No
East of Corral Hollow Road	14,818	64.0	15,445	64.2	0.2	No
Byron Road						
North of Grant Line Road	14,818	65.7	15,173	65.8	0.1	No
Grant Line Road to Lammers Road	14,818	65.7	16,368	66.1	0.4	No
Lammers Road to Corral Hollow Road	9,409	63.4	9,509	63.5	0.1	No
Corral Hollow Road						
North of Grant Line Road	16,727	65.4	17,027	65.5	0.1	No
Grant Line Road to Byron Road	25,877	67.3	26,445	67.4	0.1	No
South of Byron Road	24,364	67.1	25,000	67.2	0.1	No

Notes: ADT = average daily trips; dBA = A-weighted decibels.
Source: Traffic modeling is based upon data contained within Section 4.14 (Transportation/Traffic).

Railroad Noise

The Project site is adjacent to a UPRR alignment, which travels along Byron Road and ties into the City of Martinez. Railroad trains intermittently generate noise levels that can be significant along the railroad tracks. Title 4.12, Article 4 (Noise Control) of the City Municipal Code establishes a noise limit of 65 dBA for commercial districts. Train noise was modeled using the Federal Railroad Administration High Speed Rail Initial Noise Evaluation (refer to Appendix F). Based on the modeling, train noise at the property line (approximately 100 feet from the track centerline) would be 63.0 dBA Ldn. Therefore, railroad noise impacts would be less than significant.

Mitigation Measure: No mitigation measure is required.

Level of Significance After Mitigation: Not applicable.

4.12.4 ANALYSIS OF CUMULATIVE IMPACTS

CUMULATIVE STATIONARY NOISE

The proposed Project would introduce the use of stationary equipment that would increase noise levels within the area. Based on the long-term stationary noise analysis, impacts would be less than significant. Because noise dissipates as it travels away from its source, noise impacts from onsite stationary sources would be limited to each of the respective sites and their vicinities. Future development proposals within the City would also require separate discretionary approval and CEQA assessment, which would address potential noise impacts and identify necessary attenuation measures, where appropriate. Therefore, in conjunction with cumulative projects, the proposed Project would not have the potential to result in cumulatively considerable stationary noise impacts.

CUMULATIVE MOBILE NOISE

Cumulative mobile noise analysis is conducted in a two-step process. First, the combined effects from both the proposed Project and other projects are compared. Second, for combined effects that are determined to be cumulatively significant, the proposed Project's incremental effects are then analyzed. The proposed Project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds the threshold of perception (i.e., auditory level increase).

Although there may be a significant noise increase due to the proposed Project in combination with other related projects (combined effects), it must also be demonstrated that the proposed Project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed Project.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded as described previously under thresholds of significance. Noise by definition is a localized phenomenon, and drastically reduces as distance from the source increases. Consequently, only proposed projects and growth anticipated to occur in the general vicinity of the Project area would contribute to cumulative noise impacts. Table 4.12-12 (Cumulative Noise Scenario) lists the traffic noise effects along roadway segments in the Project vicinity for "Existing Without Project," "Long-Term Without Project," and "Long-Term With Project," including incremental and net cumulative impacts.

First, it must be determined whether the *Combined Effects* criterion is exceeded. Per Table 4.12-12, the criterion is not exceeded along any of the area roadways studied. Additionally, as depicted in Table 4.12-10, the *Incremental Effects* criterion is also not exceeded along any of the area roadways studied. Thus, the proposed Project would not result in long-term mobile noise impacts based on Project generated traffic or cumulative and incremental noise levels. Therefore, less than significant impacts would occur in this regard.

Table 4.12-12
Cumulative Noise Scenario

Roadway Segment	Existing Without Project	Long-Term Without Project	Long-Term With Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference In dBA Between Existing Without Project and Long- Term With Project	Difference in dBA between Long-Term With Project and Long-Term Without Project	
Grant Line Road						
Byron Road to Lammers Road	64.1	66.7	67.4	3.3	0.7	No
Lammers Road to Costco Driveway	63.7	67.3	67.8	4.1	0.5	No
Costco Driveway to Walmart Driveway	64.3	66.0	66.8	2.5	0.8	No
Walmart Driveway to Naglee Road	65.4	67.2	67.8	2.4	0.6	No
Naglee Road to I-205 Ramps	66.4	68.2	68.6	2.2	0.4	No
I-205 Ramps to Corral Hollow Road	65.7	66.0	66.4	0.7	0.4	No
East of Corral Hollow Road	64.1	64.0	64.2	0.1	0.2	No
Byron Road						
North of Grant Line Road	63.9	65.7	65.8	1.9	0.1	No
Grant Line Road to Lammers Road	62.9	65.7	66.1	3.2	0.4	No
Lammers Road to Corral Hollow Road	61.2	63.4	63.5	2.3	0.1	No
Corral Hollow Road						
North of Grant Line Road	62.1	65.4	65.5	3.4	0.1	No
Grant Line Road to Byron Road	66.0	67.3	67.4	1.4	0.1	No
South of Byron Road	67.0	67.1	67.2	0.2	0.1	No

Notes: ADT = average daily trips; dBA = A-weighted decibels;
Source: Traffic modeling is based upon data contained within Section 4.14 (Transportation/Traffic).

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4.13 PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

This section evaluates potential Project impacts on public services, utilities and service systems. Potential impacts associated with wildland fires are discussed in Section 4.10 (Hazards and Hazardous Materials) and potential impacts associated with stormwater runoff are discussed in Section 4.11 (Hydrology and Water Quality).

The following agencies provided data for the analysis in this section:

- City of Tracy Fire Department
- City of Tracy Police Department
- Tracy Unified School District
- City of Tracy Development and Engineering Services Department
- City of Tracy Public Works Department
- Tracy Delta Solid Waste Management, Inc.

4.13.1 ENVIRONMENTAL SETTING

FIRE PROTECTION AND EMERGENCY SERVICES

Overview/Staff/Equipment

The Tracy Fire Department (TFD) as a member agency of the South County Fire Authority (SCFA) covers approximately 23 square miles within the City of Tracy (City), and 167 square miles in the southern part of San Joaquin County (County). The TFD operates seven fire stations and an administration headquarters, which provide comprehensive fire prevention and fire code enforcement, fire suppression, emergency medical services, hazardous materials response and community emergency preparedness. The TFD/SCFA provides mutual aid with the fire departments of Manteca, Lathrop-Manteca, California Department of Forestry (CALFIRE), Alameda County, Stanislaus County and Tracy Defense Depot.

At present, TFD staff includes one fire chief, three division chiefs, two fire inspectors, two clerical staff, 69 firefighters (spread out over three shifts) and 12 reserve firefighters. Of the 69 firefighters and two of the three division chiefs, the TFD has 24 paramedics (EMT-P) and 47 emergency medical technicians (EMT-B). TFD has seven frontline engines, one frontline ladder truck, two reserve engines and a 3,000-gallon water tender. In addition, TFD has an unstaffed 1980 utility van used as a hazardous materials unit and a "medium" cache urban search and rescue (USAR) trailer that must be towed for transport.

The station that primarily serves the Project area is Station 96 located at 301 West Grant Line Road. The 24-hour staffing is three persons (captain, engineer, firefighter/paramedic). The station is equipped with one 2009 Spartan, 1500 GPM Type 1 Pumper (Engine 96). Engine 96 is an advanced life support unit.

Incident Responses

Table 4.13-1 (Tracy Fire Department Incident Responses – Fiscal Year 2009/2010) shows the number of responses that each fire unit responded to during fiscal year 2009/2010. These responses incorporate single unit or multiple units that have responded to a single incident. As indicated in Table 4.13-1, TFD had 8,538 responses to 5,717 incidents during fiscal year 2009/2010.

Table 4.13-1
Tracy Fire Department Incident Responses – Fiscal Year 2009/2010

Responding Unit	Location of Incident					
	City	Rural	Mt. House	Freeway	Other	TOTALS
Truck 91	677	108	8	105	7	**905**
Engine 91	1416	153	16	71	9	**1665**
Company 96	1503	195	15	150	31	**1894**
Company 97	961	195	2	49	4	**1211**
Company 92	164	221	2	101	52	**540**
Company 93	37	211	0	74	30	**352**
Company 94	139	156	41	87	116	**539**
Company 98	52	88	280	56	55	**531**
Battalion 9	349	270	28	214	40	**901**
TOTALS	**5298**	**1597**	**392**	**907**	**344**	**8538**
Percentage of Total	62%	19%	5%	11%	4%	**100%**

Source: D. Bramell, Division Chief/S. Hanlon, Fire Captain, City of Tracy Fire Department, November 4, 2010.

Performance Objectives

Tracy Fire Department

- The first-due unit shall, at critical emergencies, arrive within 6.5 minutes from the time the call is received at the primary Public Safety Answering Point (PSAP) 90 percent of the time, in the City.
- To confine "moderate risk" structure fires to the room of origin or less 75 percent of the time, in the City.

Tracy Rural Fire Department

- The first-due unit shall, at critical emergencies, arrive within 10 minutes from the time the call is received at the primary Public Safety Answering Point (PSAP) 90 percent of the time, in the District.
- To confine "moderate risk" structure fires to the room of origin or less 25 percent of the time, in the District.

Response Times

City of Tracy

- The TFD's baseline response performance for fiscal year 2009/2010 was 77 percent.
- "Moderate risk" structure fires were confined to the room of origin or less 92 percent of the time.

Tracy Rural Fire Department

- The Tracy Rural Fire Department baseline response performance for fiscal year 2009/2010 was 83 percent.
- "Moderate risk" structure fires were confined to the room of origin or less 92 percent of the time.

Insurance Services Office Rating

The Insurance Services Office (ISO) is an independent organization that analyzes approximately 46,000 fire districts/departments in the U.S. and assigns a number from one to 10 to each station based on the station's fire protection capabilities. In this classification system, Public Protection Classification Class 1 represents exemplary fire protection, and Class 10 indicates that the area's fire suppression program does not meet ISO's minimum criteria.

Currently within the jurisdictional area of the South County Fire Authority, the ISO Public Protection Class (PPC) is split. The City is rated as a 3, the areas just outside of the City limits are rated at 5 and rural areas without an established water system are rated at 8. Rural areas with established water systems are also rated at 5. The most recent ISO PPC assessment was conducted in the year 2000.

POLICE PROTECTION

The Tracy Police Department is a full service police department and has its own dispatch center and temporary jail facilities. The City is generally a low-crime area with the most common crimes being larceny and burglaries. Based on California's 2009 rankings, the City was rated as the second safest city in Northern California of cities with a population of over 75,000. Currently, the City provides 1.04 officers for every 1,000 residents. The national average is two officers per every 1,000 residents.

The City has one police station located at 1000 Civic Center Plaza, across from City Hall. The Police Department has 85 sworn police officers and 42 non-sworn employees deployed over three watches. The City is broken up into six patrol beats. Patrol staffing consists of at least one officer on each beat, with two per beat at night between 8:00 PM and midnight. The Project planning area would be within the boundaries of Beat 4, and Reporting Districts 124, 125 and 219.

The Police Department responded to 66,179 calls for service in 2009. The Department divides calls for service into three categories:

- Priority 1 calls are defined as life threatening situations.
- Priority 2 calls are not life threatening, but require immediate response.
- Priority 3 calls cover all other calls received by the police.

The City has a goal of a five-minute response time for Priority 1 calls. The City-wide average response time to Priority 1 calls for 2009 was 6.5 minutes. The Police Department's average response time to the

Project area during 2009 is represented in Table 4.13-2 (Project Area 2009 Average Police Response Times).

Table 4.13-2
Project Area 2009 Average Police Response Times

Type of Call	Average Response Time	Average Number of Calls per Month
Priority 1	9:41	1.05
Priority 2	22:14	4.8
Priority 3	41:49	5.95
Source: Wade Harper, Lieutenant, Tracy Police Department, August 6, 2010.		

The Police Department provides mutual aid to the San Joaquin County Sheriff's office, and vice versa, when a situation exceeds the capabilities of either department. Mutual aid is coordinated through the San Joaquin County Sheriff.

SCHOOLS

The Project site is located within the boundaries of the Tracy Unified School District (TUSD). The TUSD operates three high schools, two alternative education high schools, one community school, two middle schools, three charter schools, four K-8 schools and seven K-5 elementary schools. There were 17,494 students enrolled for the 2009-2010 school year.[1]

PARK AND RECREATIONAL FACILITIES

The City owns and operates 73 parks, totaling approximately 413 acres of developed park and open space areas for public enjoyment.[2]

The City's park system is three-tiered and includes the following park types:

- Mini-Parks. Small parks, typically less than three acres, which provide recreational activities for a specific neighborhood or subdivision.
- Neighborhood Parks. Generally, three- to 15-acre sites that provide basic recreational activities for a specific neighborhood area.
- Community Parks. Large parks, generally 15 acres or more, which include an equal mix of passive and active recreation areas that serve the entire City or a substantial portion of the City.[3]

Assuming an estimated population of approximately 82,107[4], the parks to population ratio in the City is approximately five acres of built parks per 1,000 residents.

[1] California Department of Education, http://dq.cde.ca.gov/dataquest/Enrollment, accessed May 24, 2011
[2] City of Tracy, Parks and Community Services, Activity Guide, Winter/Spring 2011, pages 30 to 31.
[3] City of Tracy, Parks Master Plan, August 2002, pages 77 to 85.

[4] State of California, Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2010, with 2000 Benchmark. Sacramento, California, May 2010.

WASTEWATER

The City owns and operates a wastewater collection system consisting of gravity sewer lines, pump stations and the City of Tracy Wastewater Treatment Plant (WWTP). 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 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 South Industrial Areas Specific Plan and Northeast Industrial Areas. The Corral Hollow sewer system conveys wastewater, mainly from residential development, from the southwestern part of the City. The Hansen sewer system, which would serve the proposed Project, conveys wastewater from the western and northern parts of the City including the Patterson Pass Business Park and the West Valley Mall. The Downtown and City's central area convey wastewater directly to the WWTP using sewer mains in Lincoln Boulevard, Bessie Avenue, Grant Line Road and Holly Drive.

The City currently has plans to expand and improve the existing WWTP. These plans have been evaluated in the Draft and Final EIR for the Tracy Wastewater Treatment Plant Expansion (SCH No. 2000012039). The Final EIR was completed in September of 2002 and was certified in November 2002. The City plans to expand the average dry weather flow treatment capacity of the WWTP from 9.0 million gallons per day (mgd) to 16.0 mgd. The expansion would also result in improvements to the quality of the effluent discharged from the WWTP by upgrading the facility from secondary to tertiary treatment. The expansion of the WWTP is occurring in four phases. Phase I of the WWTP expansion was completed in 2008 giving the City a treatment capacity of 10.8 mgd. Remaining phases will be completed over time as the City's Sphere of Influence is built out. In 2010, the average dry weather flow to the WWTP was 8.5 mgd and the average wet weather flow was ten mgd. Thus, the WWTP is currently operating below its capacity.

Existing land uses within the Project site are currently served by septic systems, which would be abandoned with Project development in accordance with applicable regulations.

WATER

The City provides water service to all uses within City limits. As future developments within the City's Sphere of Influence (SOI), but outside of the City limits, are approved, they are annexed into the City and served by the City water system.

The City's water supply sources include the Stanislaus River, the Delta-Mendota Canal and groundwater pumped from wells. In 2009, surface water from the Stanislaus River comprised 62 percent, or 3.4 billion gallons, of the City's total supply. Surface water from the Delta-Mendota Canal comprised 31 percent of the total water supply, or 1.7 billion gallons. The groundwater supply comprises seven percent, or 0.4 billion gallons of the total water supply.

The City's existing water system facilities include a water treatment plant, pump stations, wells, water mains and storage reservoirs. The John Jones Water Treatment Plant (JJWTP), which is near the Tracy Municipal Airport, processes the water from the Delta-Mendota Canal and distributes it to the City. The JJWTP has the capacity to treat 30 mgd. The City also operates eight groundwater wells that pump groundwater from a 950-square-mile portion of the larger San Joaquin Valley groundwater basin. The total extraction capacity is 15 mgd. To account for changes in elevation, the City has three pressure zones for its treated water distribution system. There are over 390 miles of water mains within the three pressure

zones. The pipes vary in diameter from four to 36 inches. The age of the pipes also varies, dating from anywhere between 1910 to the present. The City has five water storage reservoirs. Three of these are adjacent to the JJWTP, with a total storage capacity of approximately six million gallons (mg). An additional reservoir is located at the Northeast Industrial reservoir with a capacity of 2.2 mg. The fifth storage reservoir is located on Linne Road. It was completed in 2004 and has a capacity of 7.2 mg.

SOLID WASTE

The City has a franchise agreement with Tracy Delta Solid Waste Management, Inc. for solid waste collection and disposal and recycling. Solid waste is collected and taken to the 40-acre Tracy Material Recovery Facility (MRF) and Transfer Station on South MacArthur Drive before being sent to the Foothill Sanitary Landfill, 48 miles northeast of Tracy, off of Shelton Road east of Linden, California. The MRF is operated by Tracy Material Recovery and Solid Waste Transfer, Inc., and has a permitted capacity of approximately 1,000 tons per day, but averages approximately 420 tons per day, of which 80 percent is generated in Tracy.

The approximately 800-acre Foothill Sanitary Landfill, owned by San Joaquin County and operated by Foothill Sanitary Landfill, Inc. (a private operator) currently receives approximately 620 tons of material per day. In 2009, it received a total of approximately 220,000 tons of material. According to the California Integrated Waste Management Board (CIWMB), the landfill is permitted to accept a maximum of 1,500 tons per day and has a total permitted capacity of 51 million tons, of which approximately 45 million tons of capacity remains. The Foothill Sanitary Landfill is anticipated to reach capacity in approximately 2082.[5]

4.13.2 REGULATORY SETTING

STATE FRAMEWORK

Fire Protection

The California Fire Code addresses general and specialized fire safety requirements for buildings. Topics addressed in the code include, but are not limited to, fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions to protect and assist first responders, and industrial processes.

Schools

Senate Bill (SB) 50 (Section 65995[3][h] of the California Government Code) created various methods of generating revenue to pay for school construction and remodeling. These methods consist of state school bond funds, local school bonds and developer fees. There are three levels of developer fees: Level I, Level II and Level III. Level I fees are set by law, but can be adjusted for inflation. Level II fees require that developers pay for the entire local share of construction costs, which is 50 percent of total construction costs. Level II fees may be imposed by a school district on a yearly basis, but only if certain conditions are met. Level III fees require developers to pay for 100 percent of construction costs, and are imposed if the state is no longer allocating bond funds.

SB 50 stipulates that if a school district conducts a School Facilities Needs Analysis and meets certain other requirements, it may impose a statutory developer fee that may be significantly higher than the

[5] Jennifer Cariglio, Management Analyst, City of Tracy, e-mail communication, April 27, 2011

previously permitted Level I fees of $2.63 per square-foot of residential development. Currently, TUSD collects $0.36 per square foot from commercial development, including retail and office uses, to compensate for growth impacts.

Parks and Recreational Facilities

The Quimby Act allows a city to require dedication of land, the payment of in-lieu fees or a combination of both to be used for the provision of parks and recreational purposes. Cities can require land or in-lieu fees for a minimum of three acres per 1,000 residents, with the possibility of increasing the requirement to a maximum of five acres per 1,000 residents if the City already provides more than three acres per 1,000 residents.

Wastewater

The Central Valley Regional Water Quality Control Board (CVRWQCB) issues National Pollutant Discharge Elimination System (NPDES) permits in lieu of direct issuance by the Environmental Protection Agency (EPA), subject to review and approval by the EPA Regional Administrator (EPA Region 9 for the proposed Project). Technically, all NPDES permits issued by the CVRWQCB are also Waste Discharge Requirements issued under the authority of the California Water Code. NPDES permits are required for discharges of pollutants to navigable waters of the U.S. These waters consist of surface waters such as lakes, rivers, streams, bays, the ocean, dry stream beds, wetlands and storm sewers that are tributary to any surface water body. Since the City WWTP releases effluent into the Old River, the City is subject to NPDES permitting requirements.

Water

Under Assembly Bill (AB) 325, all developer installed landscaping must be accompanied by a landscape package that documents how water use efficiency would be achieved through design. In addition, Title 24 of the California Administrative Code incorporates the California Building Standards, included as the California Plumbing Code (Part 5), which promotes water conservation. Title 20 addresses public utilities and energy and includes appliance and efficiency standards that promote water conservation. Furthermore, a number of state laws require water-efficient plumbing fixtures in structures. The California Fire Code, Appendix B, outlines fire flow and storage reserve requirements for fire protection.

Solid Waste

California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling and composting. In order to achieve this goal, AB 939 requires that each city and county prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity. In addition, AB 939 established requirements for cities and counties to develop and implement plans for the safe management of household hazardous wastes. In order to achieve this goal, AB 939 requires that each city and county prepare and submit a Household Hazardous Waste Element.

LOCAL FRAMEWORK

City of Tracy Public Facilities Impact Fees

The City requires payment of Public Facilities Impact Fees to offset the capital costs for police, fire and library facilities. These fees are collected at building permit issuance and are used to fund additional facilities and equipment.

Fire and Police Protection

The Public Facilities and Services Element of the City Tracy General Plan (City General Plan) contains policies regarding the performance and efficiency of fire protection services and coordination between land use planning and fire protection. The Public Facilities and Services Element also contains policies that establish a mechanism for the coordination between law enforcement and land use decisions during the site planning and project review periods and ensure an appropriate level of police service as the community changes and grows.

Schools

At the local level, the Public Facilities and Services Element of the City General Plan contains policies for the City to coordinate with the school districts to ensure that school facilities that serve new development are available concurrent with the need. It also contains other policies to ensure that new development is responsible for its impacts on local schools by providing dedications of land or impact fees.

Park and Recreational Facilities

Chapter 13.12 of the City's Municipal Code (Section 13.12.080 – Obligation to dedicate land or pay fees) requires all development projects to maintain the City standard of four acres of park land per 1,000 people. All development projects, as a condition of approval of any tentative parcel map or tentative subdivision map, or as a condition of approval of any building permit, are required to dedicate land to the City or pay a fee in lieu thereof, or a combination of both, in order to maintain this City standard.

Wastewater

City of Tracy General Plan

Policies contained in the Public Facilities and Services Element of the City General Plan concerning wastewater focus on providing necessary wastewater infrastructure and treatment to support growth and pursuing innovative solutions for wastewater treatment and disposable.

City of Tracy Wastewater Master Plan

In 1994, the City prepared a Wastewater Master Plan following adoption of the 1993 City General Plan. The Plan was part of the City's planning efforts to expand wastewater infrastructure to accommodate the growth planned for in the General Plan. The General Plan includes recommendations for two phases of improvements to meet the future wastewater collection, treatment and disposal needs of the growth projected in the General Plan. The City is currently in the process of updating its Wastewater Master Plan.

City of Tracy Wastewater Treatment Plant Facilities Plan

In 2003, the City prepared the Wastewater Treatment Plant Facilities Plan that outlines the features and costs of a project to expand and upgrade the existing WWTP to meet NPDES permit conditions. The Plan includes an assessment of existing plant facilities and operations, an estimation of future wastewater flows, an analysis of anticipated waste discharge requirements for an expanded WWTP, a selection of recommended treatment processes, and construction phasing recommendations to provide the necessary capacity while minimizing capital expenditures.

Water

City of Tracy General Plan

Policies in the Public Facilities and Services Element of the City General Plan regarding water service address issues related to the efficient use of water and coordination between land use planning and water facilities and service. The Public Facilities and Services Element also includes policies and actions on the use of recycled water to reduce nonpotable water demands. Specifically, recycled water systems shall be constructed in new developments to facilitate the use and distribution of recycled water and projects should use recycled water for landscape irrigation and dust control, among other uses.

City of Tracy Urban Water Management Plan

The City prepared an Urban Water Management Plan (UWMP) in response to the Urban Water Management Planning Act of 1983. The Plan focuses on the conservation and efficient use of water in the City's service area, and on the development and implementation of plans to assure reliable water service in the future. In addition, the Plan contains best management practices (BMPs) for efficient water use. Under this plan, the proposed Project would be required to comply with all current metering, landscape water conservation and water use review programs in place in the City. The City is currently in the process of updating its 2005 UWMP.

City of Tracy Groundwater Management Policy

The City adopted a Groundwater Management Policy in 2001. The policy limits the City's maximum annual groundwater extraction rate to 9,000 af/yr. It also includes water level monitoring criteria to measure groundwater quality, groundwater levels and to detect any ground subsidence. In addition to establishing production caps and monitoring criteria, the 2001 Groundwater Management Policy established a Groundwater Allocation Program to address potential growth inducing impacts associated with the groundwater production levels and to provide for the allocation of groundwater resources to land uses and development activities consistent with City policies and objectives.

Water Supply Evaluation Criteria

The City Water Supply Evaluation Criteria is used to determine the adequacy of the water supply for development applications, including, but not limited to, annexations, subdivision maps, specific plans, preliminary and final development plans, zoning amendments, conditional use permits and building permits. Development projects must prove that sufficient supply is available to meet the following requirements: Critically Dry Year Conditions (available supply must be equal to 90 percent of projected demands), Dry Year Conditions (available supply must be equal to 95 percent of projected demands) and Wet, Above Normal and Normal Conditions (available supply must equal 100 percent of projected demands).

The Water Supply Evaluation Criteria require a project to provide a storage volume of at least two times its projected average daily demand to be used during emergency conditions. Hillside developments are required to provide emergency storage in treated water storage reservoirs. All other development in the City can provide emergency supply from the underlying groundwater basin provided the project utilizes wells with a capacity equal to the projected demand for an average day.

Recycled and Non-Potable Water Ordinance

The City enacted the Recycled and Non-Potable Water Ordinance in March 2002 (City of Tracy Municipal Code, Chapter 11.30: Recycled and Non-Potable Water). The ordinance requires that planned new developments in the City install pipelines and dual distribution systems to supply non-potable water to green spaces for irrigation and to facilities for industrial cooling or processing.

Solid Waste

City of Tracy General Plan

The Public Facilities and Services Element of the City General Plan includes policies to reduce the volume of solid waste produced in the City. The policies address the reduction of solid waste through recycling and resource conservation programs and seek to ensure that solid waste collection and disposal are adequate to meet the needs of the community.

Source Reduction and Recycling Element

In 1994, the City adopted a Source Reduction and Recycling Element in accordance with the requirements of AB 939. The Element provides programs and strategies for source reduction, recycling, composting, special wastes and public education as well as implementation and monitoring plans for each program and strategy.

Household Hazardous Waste Element

In 1994, the City adopted a regional Household Hazardous Waste Element in cooperation with the County and other cities to meet the requirements of AB 939. The Element provides household hazardous waste programs that include periodic collection events, limited drop-off facilities for recycling, permanent collection facilities and public education and information programs. The Element was formally approved by the CIWMB in 1995.

4.13.3 ENVIRONMENTAL ANALYSIS

THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *CEQA Guidelines*, the proposed Project would have a significant impact on public services, utilities and service systems if it would result in:

- Substantial adverse physical impacts associated with the provision of, or the 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 such as fire protection, police protection, schools, parks, or other services

- Exceedance of wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB)
- Construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (discussed in Section 4.11, Hydrology and Water Quality)
- Insufficient water supply available to serve the Project from existing entitlements and resources, or require new or expanded water supply resources or entitlements
- A determination by the wastewater treatment provider that serves or may serve the Project that it has inadequate capacity to provide the Project's projected demand in addition to the provider's existing commitments
- Service by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs
- Inability to comply with federal, state and local statues and regulations related to solid waste

POTENTIAL IMPACTS AND MITIGATION MEASURES

Public Services

4.13-1 THE PUBLIC SERVICE NEEDS OF THE PROPOSED PROJECT COULD RESULT IN SUBSTANTIAL ADVERSE IMPACTS.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

Fire Protection and Emergency Services

As part of the City's approval process, any future development proposed on the Project site would be reviewed by both the Development and Engineering Services Department and TFD to ensure that it would meet federal, state and local standards for fire safety, including the specifications of the latest adopted California Fire and Building Codes. These requirements include, but are not limited to:

- Acceptable construction materials
- Adequate fire sprinklers
- Adequate hydrant fire flow
- Number, type and location of hydrants
- Sufficient emergency vehicle access

TFD has indicated that it would be able to achieve established response times when Station 96 is relocated to 1800 W. Grant Line Road. The relocation project (CIP# 71061) is scheduled to be complete in fiscal year 2012/2013. The Project would pay development impact fees, including public facilities fees, to offset the Project's proportionate impacts on TFD facilities. The proposed commercial and office uses would increase call queuing at Station 96 by approximately 0.2 percent. Queuing is a term used to describe the occurrence of simultaneous calls in a fire company's first-due area. When simultaneous calls are dispatched in one company's first-due area, a response from another company is required. This pulls

resources from another area, thus creating a void in the service delivery system and potentially creating a delay in response. For fiscal year 2009/2010, the queuing at Station 96 was eight percent.

Depending on the exact land use developed on the Project site, there is the risk of hazardous materials incidents. For commercial and office uses, hazardous material incidents typically are minor and handled only by the Fire Department. However, the risk for a more significant hazardous materials incident requiring specially trained personnel to enter an exclusion zone is more likely because the proposed Project site contains a natural gas pipeline and is adjacent to petroleum pipelines, a natural gas pipeline, a railroad and a freeway. Hazardous material incidents requiring an entry into an exclusion zone usually require a response from other agencies who are members of the San Joaquin County Hazardous Materials Team.

Therefore, the proposed Project would result in potentially significant impacts on fire protection services requiring mitigation. Implementation of Mitigation Measure 4.13-1, which would require measures to provide adequate response times, would reduce impacts to a less than significant level.

Police Protection

The proposed Project would result in the development of a maximum of 466,000 square feet of commercial and office uses. The number of traffic accidents, auto thefts, burglaries, police reports and similar incidents increases when new development occurs, resulting in greater demands on police protection and other services. According to the Tracy Police Department, by the end of 2010, approximately 240 calls-for-service are estimated for the area immediately surrounding the Project site.[6] This represents less than 0.5 percent of service requests for 2009.

The Police Department estimates that the proposed Project would result in the need for approximately 0.5 full time equivalent (FTE) of an additional police officer.[7] The Project would pay development impact fees, including public facilities fees, to offset the Project's proportional impacts on Police Department facilities. In addition, the approximately 0.5 FTE police officer would not result in the need for new or physically altered facilities, the construction of which could cause significant environmental impacts. Thus, impacts would be less than significant in this regard.

Schools

If future employees of the commercial and office uses proposed by the Project chose to live in the TUSD boundary, their children could potentially attend TUSD schools. The proposed Project would be subject to school impact fees in accordance with the provisions of SB 50. Pursuant to Section 65995(3)(h) of the California Government Code (SB 50), "the payment of statutory fees is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use or development of real property. . . . ." Therefore, with payment of statutory fees, school impacts would be considered less than significant.

Parks and Recreational Facilities

The Project represents 466,000 square feet of commercial and office uses. The City General Plan Environmental Impact Report (EIR) assumes that within the City, commercial uses would have two employees per 1,000 square feet and office uses would have three employees per 1,000 square feet. Thus, the proposed Project would generate approximately 1,039 employees.

[6] Wade Harper, Lieutenant, Tracy Police Department, Personal Communication, August 6, 2010.
[7] John Espinoza, Police Captain, Tracy Police Department, Memorandum to Alan Bell, May 4, 2011

Although it is not possible to calculate exact levels of use, it is possible that future employees of the proposed commercial and office uses could use City parks and recreational facilities during lunch breaks or at other times of the day. Several parks are within close proximity to the Project site and would be the most likely to be used by employees during business hours. However, if future employees chose to live in the City, those employees and their children would likely use parks scattered throughout the City based on where they live. Nonetheless, the potential increased usage of City parks and recreational facilities by future employees of the Project would not be great enough to result in substantial adverse physical impacts on the existing facilities or require that new facilities be constructed. Therefore, Project impacts on parks and recreation facilities would be less than significant.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

Wastewater

4.13-2 THE PROPOSED PROJECT WOULD GENERATE WASTEWATER THAT COULD IMPACT THE CITY'S WASTEWATER TREATMENT PLANT.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

The proposed Project anticipates the construction of a maximum of 359,300 square feet of commercial (retail) uses on 33 net acres and 106,700 square feet of office uses on seven net acres. Based on the City's Draft Wastewater Master Plan wastewater generation rates of 1,375 gallons per acre per day (gpad) for commercial (retail) and 1,140 gpad for office uses, the proposed Project would be expected to generate up to 53,355 gpd of wastewater. The WWTP currently treats approximately 8.5 mgd of wastewater and due to recent expansions can now effectively treat up to 10.8 mgd of wastewater. The approximately 53,355 gpd of wastewater that may be generated by the Project would not exceed the capacity of the WWTP. No improvements or expansions to the existing WWTP are required, and the addition of Project-generated wastewater would not result in any CVRWQCB violations related to effluent treatment or discharge. Implementation of the proposed Project would have a less than significant impact.

Mitigation Measure: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

4.13-3 THE PROPOSED PROJECT WOULD CONSTRUCT SEWER LINES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Wastewater generated by the proposed commercial and office uses would be conveyed to the WWTP through the City's existing Hansen sewer line. The proposed Project would connect to the Hansen sewer

line by constructing a new sewer line either under Grant Line Road or through private properties. However, constructing a new sewer line through private properties is considered infeasible due to uncertainties regarding the willingness of land owners to allow construction of a sewer line through their properties. Therefore, for the purposes of this EIR analysis, it is assumed that the Project would connect to the existing Hansen sewer line by constructing a new sewer line under Grant Line Road.

The construction of a new sewer line under Grant Line Road would occur within existing right-of-way. As such, impacts would primarily be limited to those associated with construction, such as short-term increases in noise and air pollutants, as well as temporary traffic delays if travel lane closures are necessary. In addition, pump or lift stations may be required. These facilities typically require a development footprint of only a few hundred square feet and are usually electrically powered and generate little noise, as much of the equipment would be located within underground vaults. No significant impacts would be expected with adherence to the City's Noise Control Ordinance, and implementation of standard construction-related mitigation measures identified in this EIR and Mitigation Measure 4.13-3.

Mitigation Measures: Implement Mitigation Measure 4.5-1 identified in Section 4.5 (Air Quality).

4.13-3 Prior to issuance of grading or building permits, whichever occurs first, sewer design calculations shall be prepared for review and approval by the City Engineer to ensure proper sizing of sewer lines and lift stations to meet sewer flow requirements.

Level of Significance After Mitigation: Less Than Significant Impact.

Water

4.13-4 THE WATER SUPPLY NEEDS OF THE PROPOSED PROJECT COULD IMPACT EXISTING ENTITLEMENTS AND RESOURCES.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

The proposed Project anticipates the construction of a maximum of 359,300 square feet of commercial (retail) uses on 33 net acres and 106,700 square feet of office uses on seven net acres. The City uses a standard water consumption rate of 1,785 gpad for commercial (retail) uses and 1,339 gpad for office uses. Thus, the commercial and office uses proposed by the Project would be expected to use 68,278 gpd of water. According to the City, it has sufficient water supplies available to serve the proposed Project, as well as the City's existing and projected future water demands to the year 2030 during all hydrologic conditions (normal years and dry years). Therefore, the proposed Project would result in a less than significant impact on water supplies, and no new water production, treatment or extraction facilities would be required to serve the Project.

Mitigation Measure: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

4.13-5 THE PROPOSED PROJECT MAY REQUIRE ADDITIONAL WATER LINES AND/OR PUMP STATION AND WATER RESERVOIR IMPROVEMENTS TO PROVIDE SUFFICIENT WATER PRESSURE OR FIRE FLOWS, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS.

Level of Significance Before Mitigation: Potentially Significant Impact.
Impact Analysis:

According to the City Engineer, the proposed Project would require the extension of the existing 16-inch water line in Grant Line Road and the existing 12-inch water line running north-south on the eastern side of the Project site. Additional water lines, as well as pump station and water reservoir improvements may be required to provide sufficient water pressure or fire flows.

The construction of additional water lines, as well as pump station and water reservoir improvements would occur within existing right-of-way. As such, impacts would primarily be limited to those associated with construction, such as short-term increases in noise and air pollutants, as well as temporary traffic delays if travel lane closures are necessary. No significant impacts would be expected with adherence to the City's Noise Control Ordinance and implementation of standard construction-related mitigation measures identified throughout this EIR.

Mitigation Measure: Implement Mitigation Measures 4.5-1 identified in Section 4.5 (Air Quality).

Level of Significance After Mitigation: Less Than Significant Impact.

Solid Waste

4.13-6 THE SOLID WASTE DISPOSAL NEEDS OF THE PROPOSED PROJECT COULD IMPACT THE LANDFILL THAT WOULD SERVE THE PROJECT.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

CIWMB has collected solid waste generation rates from a variety of sources. The rates vary widely and present a broad range of potential estimated solid waste demands. Rates for commercial retail uses range from as little as 2.5 pounds per 1,000 square feet a day to as much as 46 pounds per 1,000 square feet per day, while office uses range from six pounds per 1,000 square feet per day to 115 pounds per 1,000 square feet per day. Based on these rates, the proposed Project would generate between 1,538.45 and 28,798.3 pounds (0.77 to 14.4 tons) of waste per day.

Tracy Delta Solid Waste Management, Inc. would provide solid waste collection services to the Project site and would haul discarded waste to the Tracy MRF and Transfer Station and then on to the Foothill Sanitary Landfill. As previously noted, the landfill is permitted to accept a maximum of 1,500 tons per day and has a total permitted capacity of 51 million tons, of which approximately 45 million tons of capacity remains. Based on the current permit, Foothill Sanitary Landfill is projected to be in operation until 2055. The Project's estimated per day solid waste generation (0.77 to 14.4 tons) would not be substantial relative to the maximum amount of solid waste permitted per day at the Foothill Sanitary Landfill (1,500 tons). Therefore, the Foothill Sanitary Landfill would have sufficient capacity to receive the solid waste that would be generated by the proposed Project.

In addition, the Project would be required to comply with all federal, state and local regulations regarding solid waste disposal, including City recycling and waste diversion ordinances. This would avoid significant solid waste disposal impacts related to construction and operation of the proposed Project. The proposed Project would have a less than significant impact with regard to solid waste.

Mitigation Measure: No mitigation is required.

Level of Significance After Mitigation: Less Than Significant Impact.

4.13.4 ANALYSIS OF CUMULATIVE IMPACTS

As described above, the public service needs of the proposed Project would not result in significant impacts to the Police and Fire Departments' facilities. The proposed Project would have less than significant impacts on wastewater treatment, water supply and solid waste disposal and impacts related to the provision of new sewer and water lines and other associated infrastructure (pump and lift stations or water reservoirs) would be less than significant with implementation of Mitigation Measures 4.5-1.

Cumulative projects include development projects in the City and County that could increase the need for public services within the Project vicinity. However, future development within the Project vicinity would be guided by the City and County General Plans, and associated planning and environmental documents. Each project would be subject to the City and/or County planning process. As part of this planning process, the payment of appropriate fees (including development impact fees) by all development projects would be required to mitigate any effects on public services, utilities and service systems and minimize cumulative impacts on a project-by-project basis. Furthermore, the City and County Fire Departments and Police/Sheriff Departments would be involved in the development review process for all projects in the City and County, and would continue to provide input into the review of new projects. Future development would also be required to comply with all federal, state and local regulations and ordinances protecting utility services, including complying with all water conservation measures and waste minimization efforts in accordance with City and County requirements. Therefore, the incremental impact associated with the proposed Project would not contribute to cumulative long-term impacts on public services, utilities and service systems and, therefore, would not be cumulatively considerable.

4.14 TRANSPORTATION/TRAFFIC

This section evaluates existing and future traffic for the proposed Project and assesses the potential traffic impacts in the vicinity of the site. The analysis evaluates traffic conditions for both onsite and surrounding area intersections and roadway system within the City of Tracy (City), California Department of Transportation (Caltrans) and San Joaquin County (County). Key intersections and roadway segments in the vicinity of the Project site are evaluated during existing and future conditions.

The following scenarios were evaluated to provide a baseline for determining Project related impacts:

Existing Conditions:
Existing Conditions represents existing peak-hour traffic volumes on the existing roadway network. Existing traffic volumes were obtained from manual peak hour traffic counts at the study intersections.

Near Term Conditions (2015):
Near Term Conditions represents future 2015 traffic volumes on the existing roadway network plus planned and funded improvements likely to be constructed by 2015. Near Term traffic volumes were estimated by applying a general three percent per year growth to account for increase in traffic from other approved and proposed development projects within and surrounding the City.

Cumulative Conditions (2030):
Cumulative Conditions 2030 represent buildout of the City of Tracy General Plan (City General Plan). Traffic volumes for 2030 were forecasted using the City of Tracy Travel Demand Model (TDM). This scenario addresses cumulative intersection and roadway operations on the future transportation network as discussed in the City General Plan.

Project Characteristics:
Project characteristics include descriptions of Project trip generation, distribution and assignment. In order to determine the level of the Project's impact at each of the study locations, an analysis was performed with Project generated trips added to the baseline conditions.

Existing Plus Project Conditions:
Existing Plus Project Conditions represents existing traffic plus trips associated with the proposed Project. This scenario discusses traffic operations of the study locations under Existing Conditions with the addition of Project traffic. The roadway network for this scenario would remain the same as Existing Conditions except the Project access driveways.

Near Term Plus Project Conditions (2015):
Near Term Plus Project Conditions represents Near Term traffic plus trips associated with the proposed Project. This scenario is similar to the Near Term Conditions without Project in terms of roadway network, and discusses traffic operations of the study locations with the addition of Project traffic.

Cumulative Plus Project Conditions (2030):
Cumulative Plus Project Conditions analyzes the addition of Project trips to the Cumulative Conditions 2030 baseline traffic volumes and roadway network.

Transportation Master Plan (2035) Conditions:
The Transportation Master Plan (TMP) is a separate ongoing project for the City. This scenario is analyzed and discussed in detail in the TMP document, however, is qualitatively addressed as part of this

EIR. The transportation infrastructure in this scenario is per the TMP document except Project accesses, which is consistent with other scenarios mentioned earlier.

4.14.1 ENVIRONMENTAL SETTING

The Project site is located immediately adjacent to the northwestern City boundary within the City's Sphere of Influence, along Grant Line Road and east of Union Pacific Railroad, approximately ½ mile west of Interstate 2-5 (I-205) and Naglee Road Interchange. The Project proposes to annex approximately 43 acres of unincorporated land to the City; amend the City General Plan land use designation of the Project site from Urban Reserve 12 (UR 12) to Commercial; amend the I-205 Corridor Specific Plan to add the Project site to the Specific Plan area, designate it General Commercial (GC) and amend the freeway sign height and size standards; and Prezone the Project site Planned Unit Development (PUD). In addition, the Project represents 466,000 square feet of commercial/office land use. For the purpose of analysis, the Project assumes 359,300 square feet would be commercial/retail use and the remaining 106,700 square feet office use.

STUDY LOCATIONS

Study Intersections and Roadways

To determine potential significant impacts related to the proposed Project, the following existing intersections and freeway segments were selected for analysis based on the Project's potential impacts, local area knowledge, project vicinity, and discussion with City staff. All intersections were analyzed for weekday AM and PM peak period. In addition, Saturday Mid-day peak hour (12:00 PM to 2:00 PM) analysis for ramp intersections were analyzed. The Saturday analysis was selected because of the existing commercial /retail uses in the immediate vicinity of the site, Costco and Walmart, and also the proposed Project's land use. Figure 4.14-1 (Existing Study Intersection and Freeway Segment Locations) shows the location of existing study intersections and freeway segments, streets and highways within the Project area and Figure 4.14-2 (Existing Conditions Study Intersection Lane Configuration) shows the existing study intersections lane configuration. A brief description of intersections and roadways within the Project area is provided below as well as the respective peak time periods analyzed.

Existing Intersections:

1. Byron Road/Grant Line Road (AM/PM)
2. Lammers Road/Grant Line Road (AM/PM)
3. Costco Driveway/Grant Line Road (AM/PM)
4. Wal-Mart Driveway/Grant Line Road (AM/PM)
5. Naglee Road and I-205 WB On-Ramp/Grant Line Road (AM/PM/SAT)
6. I-205 EB Off-Ramp/Grant Line Road (AM/PM/SAT)
7. Corral Hollow Road/Grant Line Road (AM/PM)
8. Lammers Road (S)/Byron Road (AM/PM)
9. Corral Hollow Road/Byron Road (AM/PM)
10. Lammers Road/Eleventh Street (AM/PM)
11. Corral Hollow Road/Eleventh Street (AM/PM)

Existing Freeway Study Segments:

A. I-205 between the Mountain House Parkway Interchange and Eleventh Street Interchange
B. I-205 between the Eleventh Street Interchange and Grant Line Road Interchange
C. I-205 between the Grant Line Road Interchange and the Tracy Boulevard Interchange

The City General Plan identifies several new roadways, including Grant Line Road Extension, Lammers Road Extension and the I-205 Interchange, and Pavillion Parkway Extension in the vicinity of the Project site. It is expected that the proposed Project trips would utilize this new roadway network. Thus, the following future intersections and freeway segments were selected for analysis. Figure 4.14-3 (2030 Cumulative Study Intersection/Freeway Segment Locations) shows the location of future intersections and freeway segments within the Project area.

Cumulative Intersections:

12. Grant Line Road Extension/Pavilion Parkway (AM/PM)
13. Not used
14. Lammers Road Extension/I-205 EB On & Off Ramps (AM/PM/SAT)
15. Lammers Road Extension/I-205 WB On & Off Ramps (AM/PM/SAT)
16. Lammers Road Extension/Commerce Way (AM/PM)

Cumulative Freeway Study Segments:

A. I-205 between the Mountain House Parkway Interchange and the new Lammers Extension Interchange
B. I-205 between the new Lammers Extension Interchange and Grant Line Road Interchange
C. I-205 between Grant Line Road Interchange and the Tracy Boulevard Interchange

Project access points would be located along Grant Line Road via two full access intersections and two partial access driveways. Of the two full access intersections, one is an existing intersection (#2) and the other is a proposed intersection. Of the two partial access driveways, both would allow right-in and right-out only, and one would allow left-in only. Intersection #2 would be constructed to include the truck exit from Costco. The existing exclusive lane would be eliminated and the northbound right turn movements would accommodate the truck movements.

Access Driveways:

17. Access 2/Grant Line Road (AM/PM)
18. Access 1/Grant Line Road (AM/PM)
19. Access 3/Grant Line Road (AM/PM)

The TMP identifies several potential additional roadways not included in the City General Plan but analyzed in the TMP. In the immediate vicinity, Lammers Road would potentially extend to the south to connect with Byron Road south of the Project site. The TMP is further described in Section 4.14.10 (Transportation Master Plan (2035) Conditions).

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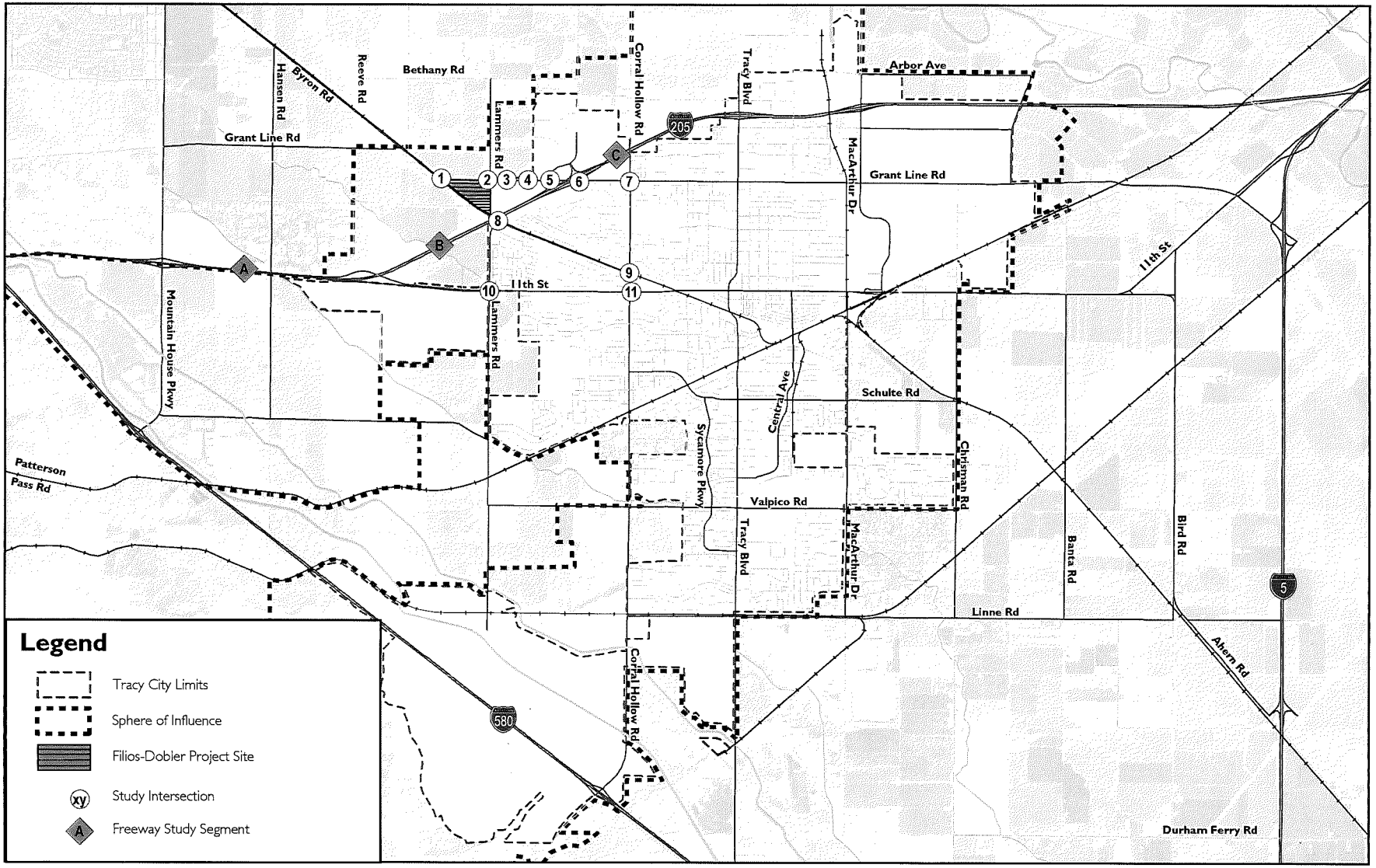

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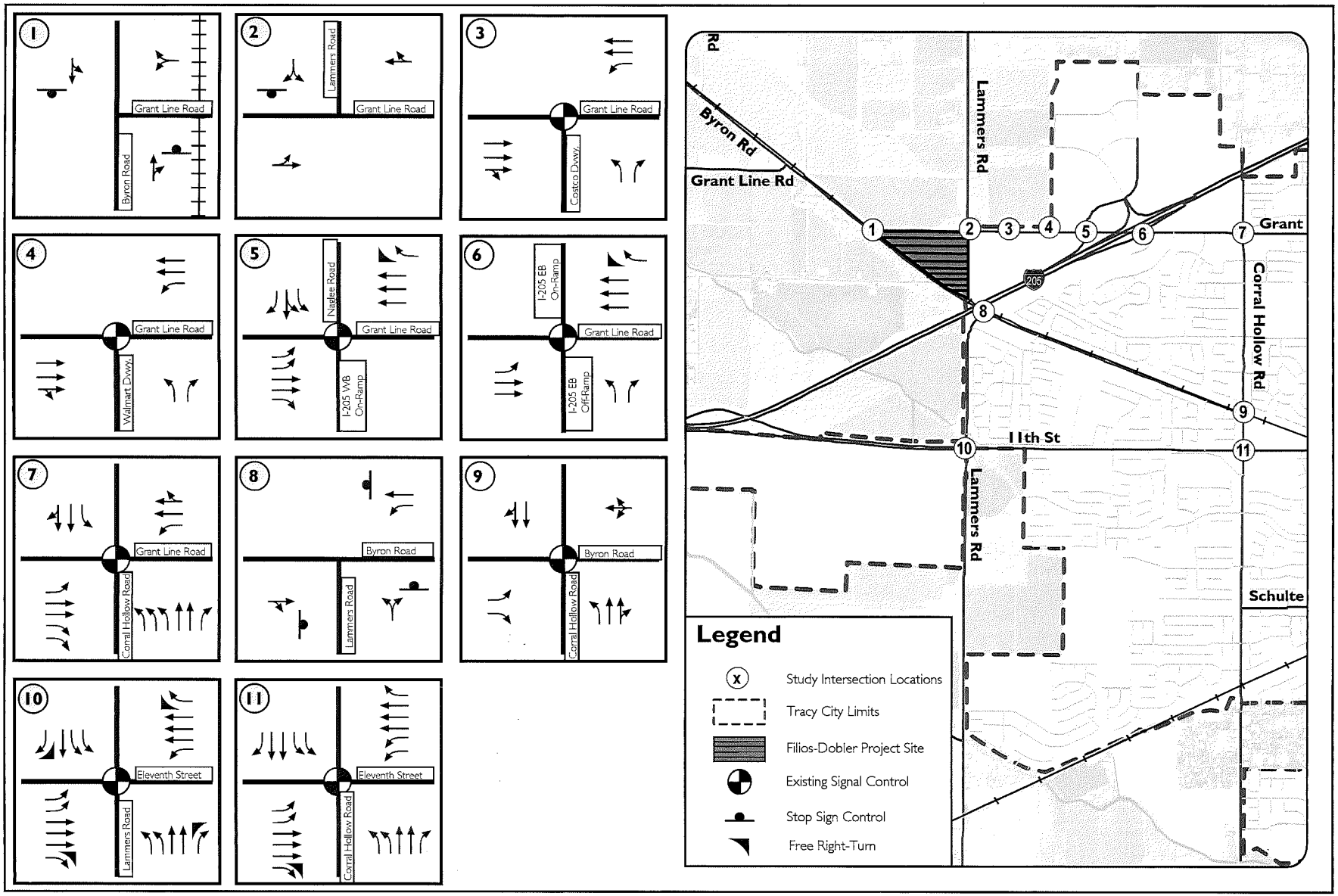
Existing Study Intersection / Freeway Segment Locations

Figure 4.14-1



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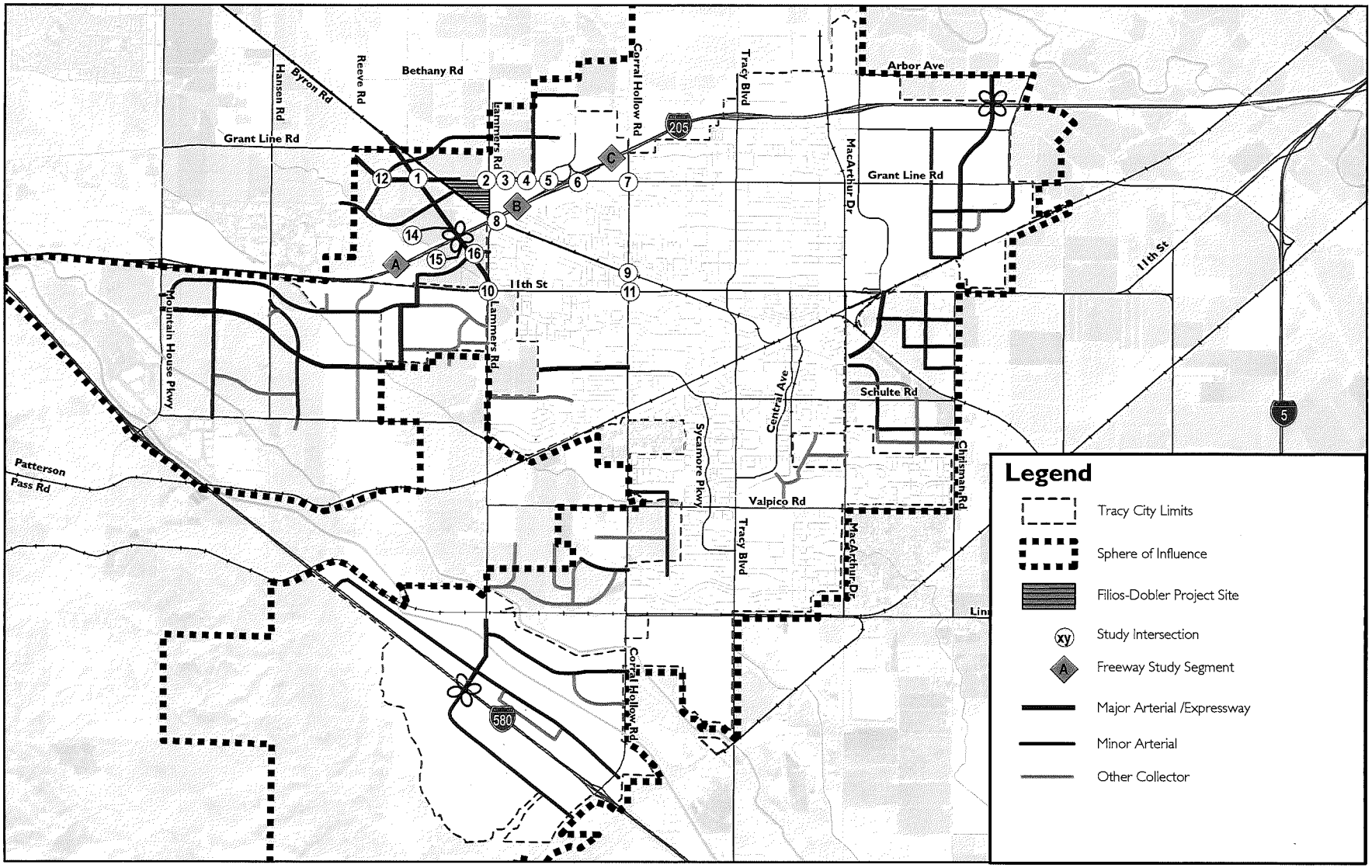
Existing Conditions Intersection Lane Configuration

Figure 4.14-2



Data Source: RBF Consulting / City of Tracy General Plan EIR, July 2010

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2030 Cumulative Study Intersections /Freeway Segments

Figure 4.14-3

Regional Roadways

Regional access to the City is from Interstate 5 (I-5), I-205 and Interstate 580 (I-580). Local access to the site is from Grant Line Road and Byron Road.

Interstate 205 runs east-west through the northern portion of the City, and connects I-5 and I-580. The posted speed limit along I-205 is 65 mile per hour (mph) through Tracy and is a six lane freeway facility (three lanes per direction). I-205 provides regional access to the planning area via a full access interchange at Grant Line Road and the interchange at Eleventh Street.

Interstate 580 runs north-south through the western portion of the City. I-580 connects the northern San Joaquin Valley to the eastern and northern Bay Area. On the southeast end, I-580 connects to I-5 in San Joaquin Valley near Tracy. On the west end, I-580 connects to US-101 in San Rafael. I-580 provides regional access to the City via full access interchanges at Mountain House Parkway/ Patterson Pass Road and Corral Hollow Road. I-580 has four lanes (two lanes per direction) along the segment through the City and has a posted speed limit of 65 mph.

Interstate 5 provides access to Los Angeles to the south and Sacramento to the north. It connects with I-580 southeast of the City, and I-205 east of the City near Lathrop.

Local Roadways

Byron Road is a north-south two-lane arterial within the City limits, and a two-lane rural highway outside the City limits and connects to Brentwood to the north. The posted speed limit along Byron Road ranges from 35 mph (within the City of Tracy) and 55 mph (outside the City limits). There are no sidewalks or bicycle facilities along Byron Road in the vicinity of the Project site. Byron Road runs parallel to the Union Pacific Railroad and ends at Corral Hollow Road.

Corral Hollow Road is a north-south arterial facility with between two and four lanes. It includes landscape medians, bike lanes and sidewalks. Outside the City limits to the south, Corral Hollow Road is a two-lane rural facility and extends into Alameda County. The posted speed limit along Corral Hollow Road ranges from 35 mph to 55 mph.

Grant Line Road is an east-west arterial facility with between two and six lanes. Grant Line Road has six lanes between Corral Hollow Road and Naglee Road, and five lanes (three eastbound and two westbound) between Naglee Road and Lammers Road. Grant Line Road west of Lammers Road and along the Project frontage is a two-lane road and about 22 feet wide with no frontage improvements (curb, gutter and sidewalks). East of Lammers Road, between Costco Driveway and Naglee Road, sidewalks are provided only on the south side of the street, however, between Naglee Road and MacArthur Drive sidewalks are provided on both sides of the streets. Class II bike lanes are provided east of Grant Line Road interchange and Tracy Boulevard. Grant Line Road intersects with several north-south arterials within the City, and also has a full access interchange with I-205. The posted speed limit along Grant Line Road is 40 mph.

Naglee Road is a north-south six-lane arterial facility. To the north it connects to West Valley Mall, the City's largest shopping center, and to the south to the I-205 westbound on ramp. The posted speed limit along Naglee Road within the City limits is 35 mph. Naglee Road has a Class I bicycle facility and sidewalks are provided on both sides of the street.

Lammers Road currently is a two-lane north-south arterial facility. It currently terminates at Grant Line Road in the vicinity of the site and resumes at Byron Road, south of Union Pacific Railroad. Lammers

Road south of Byron Road serves residential development and a school south of Eleventh Street. Further to the south it crosses two railroad crossings, ACE and Union Pacific Railroad at W. Schulte Road and Linne Road, respectively, and ends at the California Aqueduct. The posted speed limit along Lammers Road is 35 mph. There is a planned future extension of Lammers Road northwest of Eleventh Street that would connect to I-205.

Von Sosten Road is a two-lane east-west collector.

EXISTING PEDESTRIAN AND BICYCLE CIRCULATION

This section describes the existing pedestrian and bicycle facilities in the study area.

Bicycle Facilities

The City adopted the Bikeways Master Plan in April 2005, and more recently the Tracy Bikeways Master Plan Design Supplement in February 2009. These documents provide specific design standards that any new or upgraded bikeway facilities should adhere to in order to achieve an ideal bikeway design. The following provides a description of bicycle facility classifications:

Class I Bikeway (Bike Path)

A Class I Bikeway is a physically separated bike path that does not share the roadway with motorized vehicles. They can be separated by either open space or a physical barrier and are generally two-way facilities.

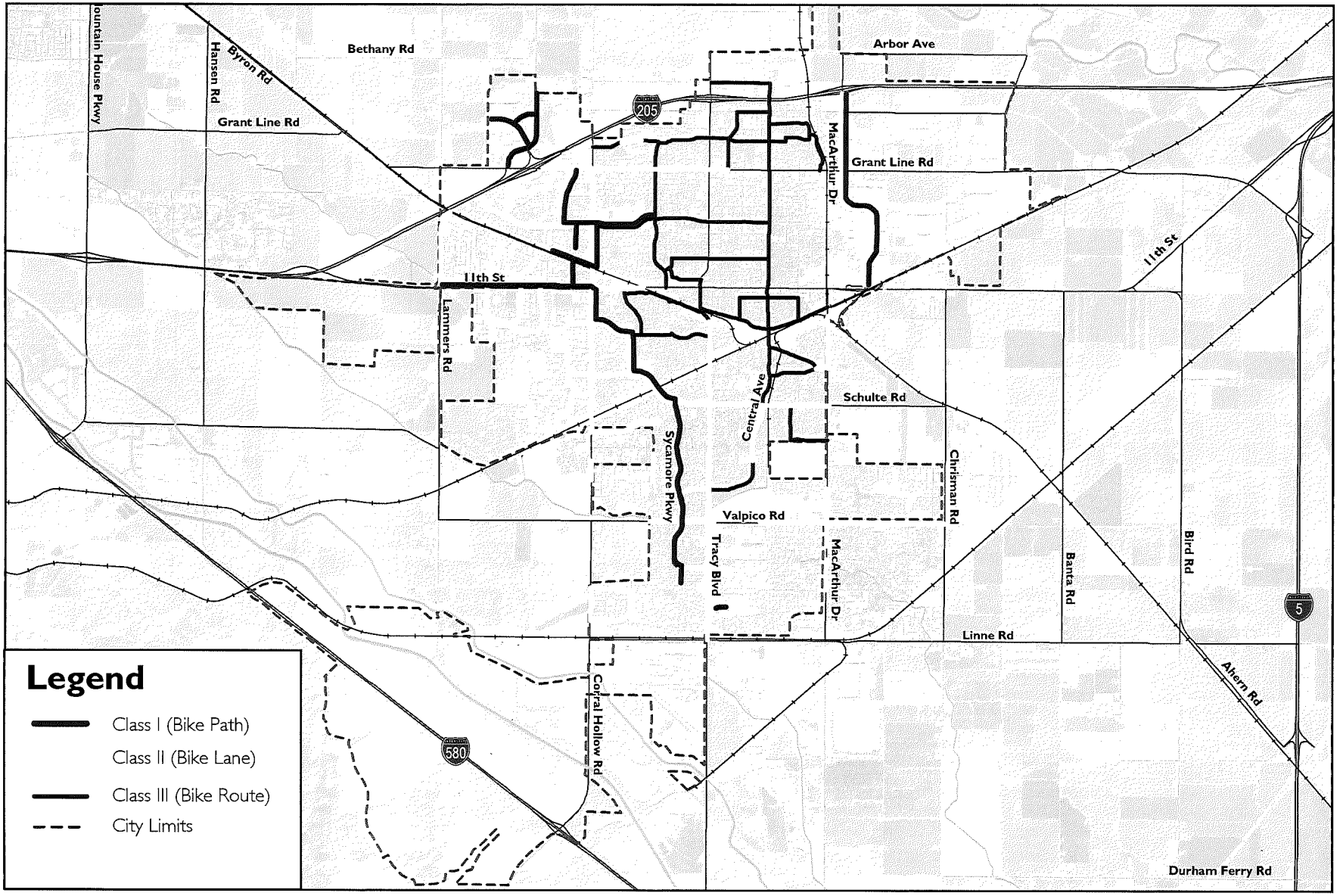
Class II Bikeway (Bike Lane)

A Class II Bikeway is a bike lane that shares a portion of the roadway with motorized vehicles. They are separated by striping and are signed and marked for exclusive use by bicycle traffic. Class II Bikeways provide service for one-way bicycle traffic and are located outside of the through lanes for motorized vehicles.

Class III Bikeway (Bike Route)

A Class III Bikeway is a bike route that shares the roadway with motorized vehicles. They are identified by signs and not separated by striping. Class III Bikeways are utilized in locations that do not have Class I or Class II facilities or to connect Class II Bikeways to provide a continuous bikeway system.

The City of Tracy has an extensive bicycle network that includes all three bikeway categories but lacks connectivity. Currently, there are no bicycle facilities provided along the study segment of Grant Line Road. Figure 4.14-4 (Existing Bikeways) displays the existing bicycle facilities within the City.



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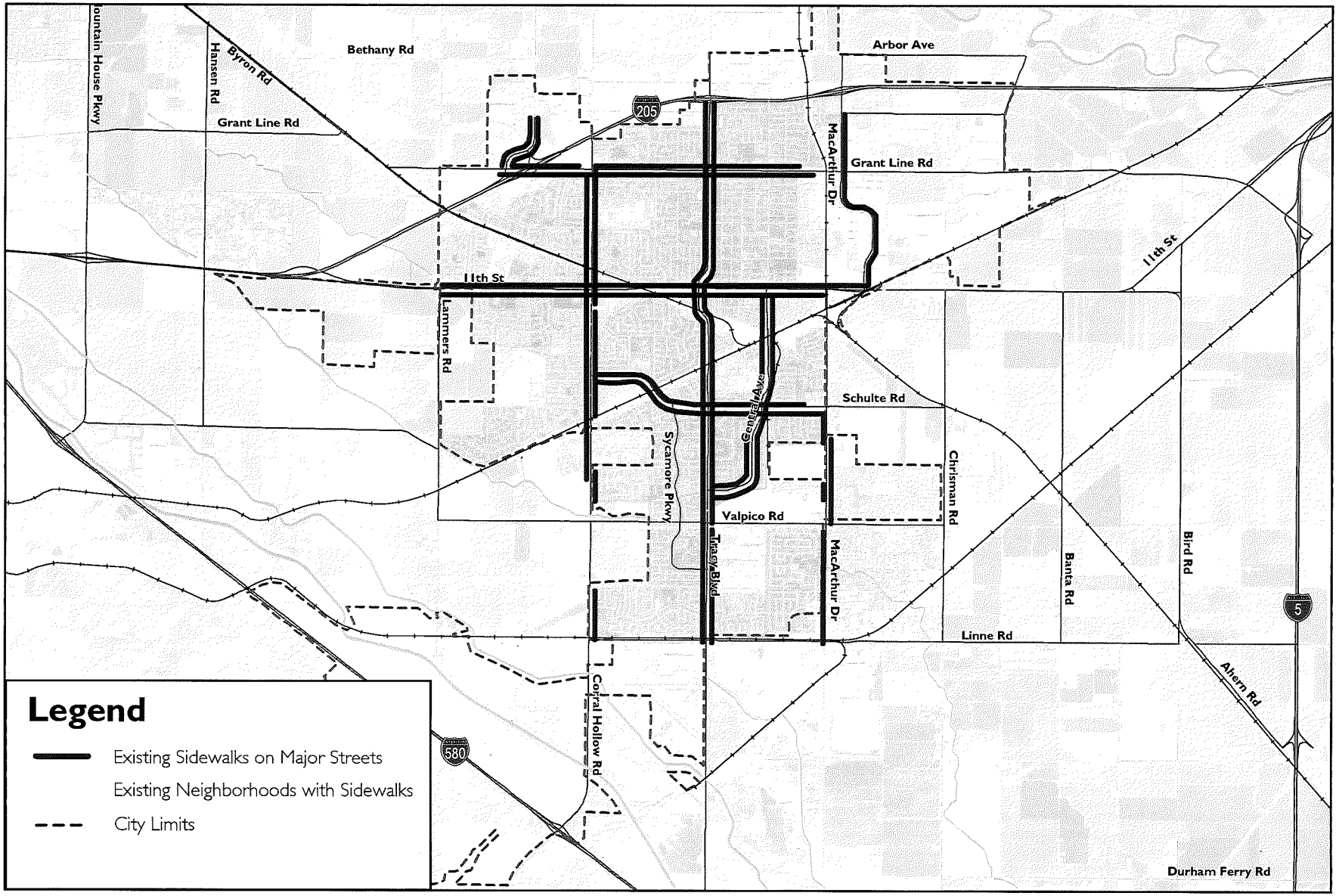
Existing Bikeways

Figure 4.14-4



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Existing Sidewalks

Figure 4.14-5

Pedestrian Facilities

The City is pedestrian friendly with widespread sidewalk coverage and pedestrian crossing with ADA ramps along major roadways and in residential neighborhoods. Similar to bikeway facilities, the City has critical gaps in sidewalk coverage. Pedestrian facilities, such as sidewalks, crosswalks and pedestrian signals are lacking along the Project frontage of Grant Line Road. Figure 4.14-5 (Existing Sidewalks) provides a map of the existing sidewalk locations within the City.

Existing Transit Service

The public transit system includes both bus and rail components. The City is serviced by the following public transportation services:

- Local fixed-route and commuter bus services operated by the City (TRACER)
- Regional intercity fixed-route bus service operated by the San Joaquin Regional Transit District (SJRTD)
- County Hopper Service operated by SJRTD
- Commuter express bus service operated by SJRTD
- Altamont Commuter Express (ACE) rail service

Figure 4.14-6 (Existing Transit Facilities) displays the existing bus transit system and Figure 4.14-6a (Existing ACE Route) displays the ACE rail service map within the City.

Local Fixed-Route Bus Service (Tracer)

Fixed-route services run on a set route and time with fixed stops. TRACER offers five fixed bus routes, Routes A-E. Routes A, B and C run Monday through Friday from approximately 6:30 AM to 7:40 PM and Saturday from 9:00 AM to 5:00 PM. Routes D and E run only on weekdays when school is in session. TRACER does not operate on Sundays and holidays.

Route A provides service to/from the Tracy Transit Station to West Valley Mall, and runs along East Street, MacArthur Drive, Grant Line Road, Tracy Boulevard and Corral Hollow Road. It also provides services to other major destinations within the City including Prime Outlets, Civic Center and West Valley Mall. It operates between 6:30 AM to 7:15 PM on weekdays, and between 9:15 AM to 4:28 PM. This service is provided with approximately 90-minute headways on both weekdays and Saturday.

Route B also provides service to/from the Tracy Transit Station to West Valley Mall, and runs along Holly Drive, Eaton Avenue, Tracy Boulevard, Lowell Avenue, Corral Hollow Road, Grant Line Road and Naglee Road. Major destinations served along this route include Sutter Tracy Community Hospital, Civic Center, Walmart and West Valley Mall. It operates between 7:10 AM to 7:40 PM on weekdays, and between 9:20 AM to 5:30 PM on Saturday. This service is provided with approximately 60-minute headways during the AM peak hour and PM peak hour, and 90-minute headways during the day.

Route C provides service to/from the Tracy Transit Station to south Tracy residential area, along 10th Street, Eleventh Street, Corral Hollow Road, Schulte Road, Tracy Boulevard and Central Avenue. Major destinations served along this route include Civic Center, U.S. Post Office, Williams Middle School and SaveMart. It operates between 6:30 AM to 7:10 PM on weekdays, and between 9:10 AM

to 4:55 PM on Saturday. This service is provided with approximately 60-minute headways on both weekdays and Saturday.

Route D and Route E are commuter routes and provide service only on weekdays. These routes provide a clockwise and counterclockwise loop around the City limits and run along East Street, Holly Drive, Kavanagh Avenue, Tracy Boulevard, Lowell Avenue, Corral Hollow Road, Schulte Road, Sycamore Parkway and Central Avenue. Major destinations served along these routes include Civic Center, library, elementary, middle and high schools in Tracy, and Tracy Sports Complex. It operates two services during the AM peak hour and four in the afternoon.

Appendix G (Traffic Technical Appendix) provides detail TRACER schedules and routes.

Regional Intercity Fixed-Route Bus Service

The SJRTD operates one fixed-route bus line (Route 26) that connects the City to Stockton via Lathrop. Route 26 runs along Grant Line Road and East Street within Tracy. Major destinations served along this route include Civic Center and Tracy Transit Station. It operates between 5:00 AM to 9:25 PM on weekdays with varying services between 30 and 90 minutes intervals during the AM peak hour and PM peak hour, and between 9:25 AM to 5:53 PM on Saturday/Sundays/holidays with only four trips during the day with varying time intervals.

County Hopper Service

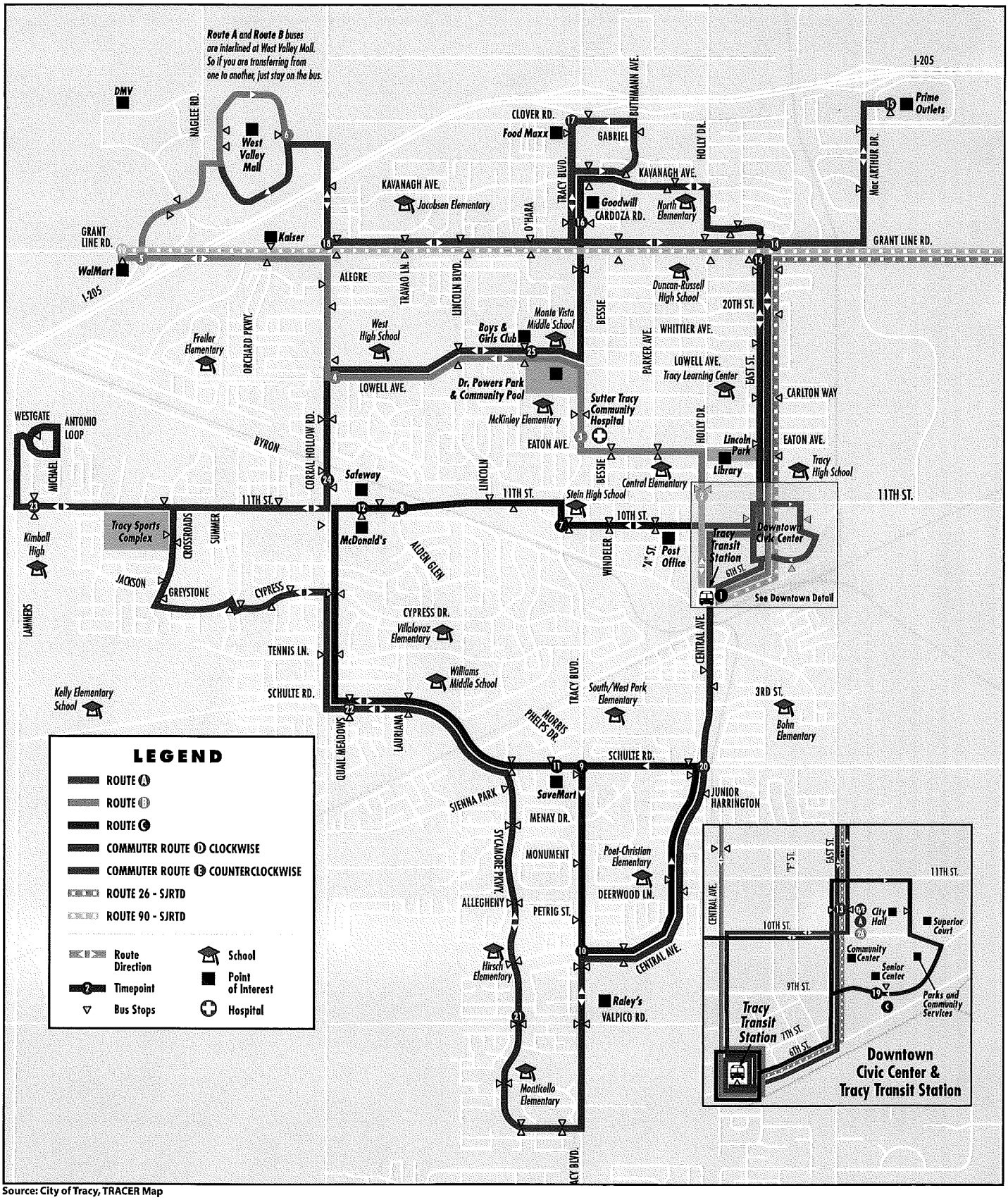
The SJRTD County Hopper (Route 90) is a deviated fixed-route bus service connecting Stockton, Tracy, Lodi, Manteca, Ripon and Lathrop. The Hopper replaces SJRTD Countywide General Public Dial-A-Ride (DAR), Rural Elderly & Disabled DAR, and County Area Transit (CAT) fixed-route services during Hopper service hours in the areas covered by the Hopper service. Within the City, this route runs along Grant Line Road with stops at major locations such as Wal-Mart. Route 90 operates Monday through Friday between 5:30 AM and 9:40 PM on weekdays with varying services between 50 and 145 minutes intervals.

SJRTD Commuter Bus Service

San Joaquin Commuter provides several inter-regional bus services from Nagle Road Park & Ride lot to the East Bay and South Bay, Monday through Friday, during commute hours. One route travels down Holly Drive, Central Avenue, Schulte Road, Tracy Boulevard and Eleventh Street to Lawrence Livermore/Sundia Labs. Pick-up times vary between 4:00 AM and 6:00 AM and drop-off times vary between 4:00 PM and 6:00 PM.

Altamont Commuter Express

ACE is a passenger rail service connecting Stockton to San Jose. ACE operates on weekdays, excluding holidays. The ACE station in Tracy is located along Tracy Boulevard near Linne Road. Three westbound trains pass through Tracy with approximately one-hour headways at 4:49 AM, 6:04 AM and 7:09 AM, and three eastbound trains returning to Tracy with one-hour headways, at 5:09 PM, 6:09 PM and 7:09 PM.



Source: City of Tracy, TRACER Map

North

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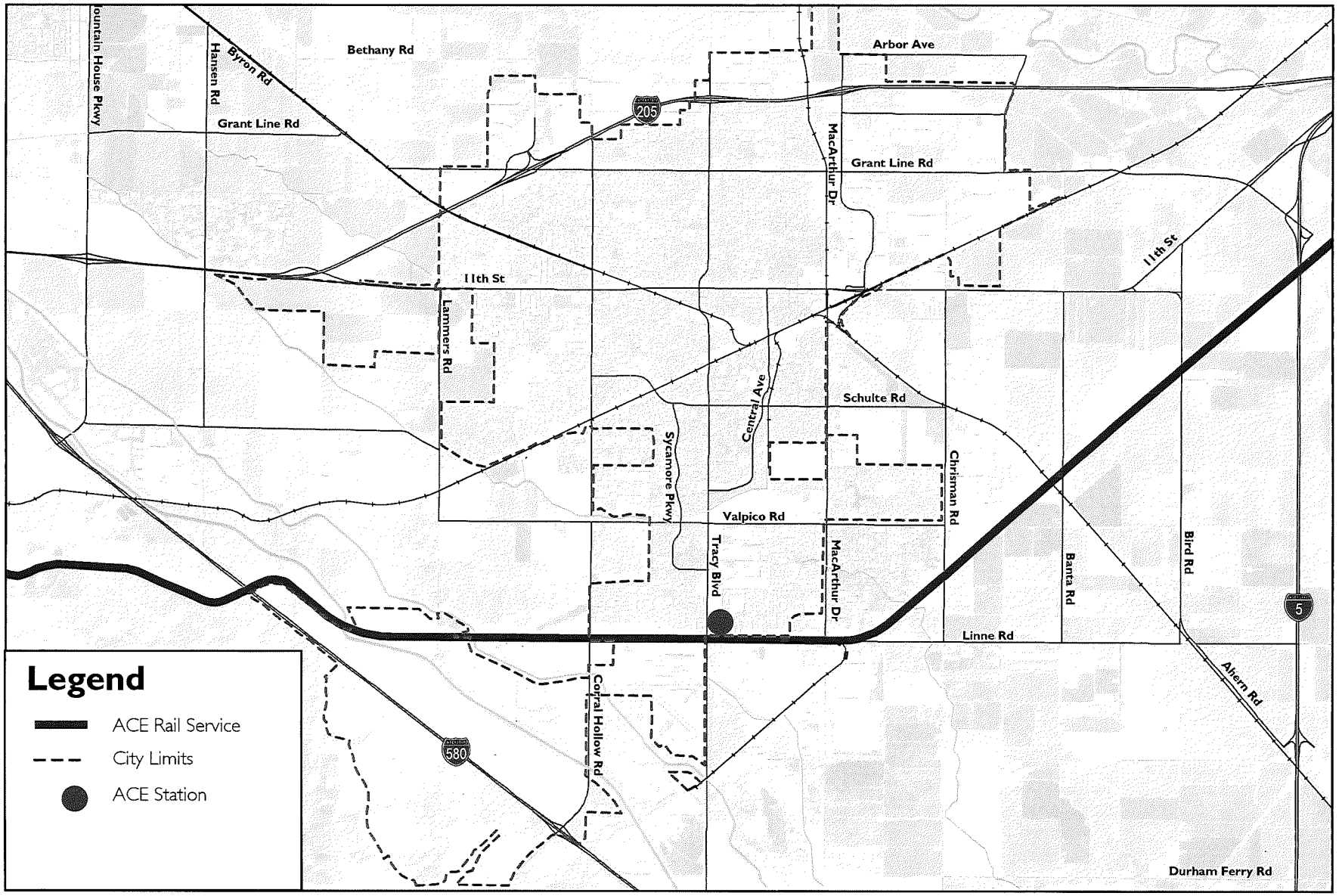
Existing Bus-Transit Facilities

Figure 4.14-6



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Existing ACE Route

Figure 4.14-6a

4.14.2 ANALYSIS METHODOLOGY AND SIGNIFICANCE CRITERIA

The methodologies used to perform the operational analyses and provide quantitative Level of Service (LOS) were based on the 2000 Highway Capacity Manual (HCM) for unsignalized and signalized intersections. The evaluation of signalized and unsignalized intersection operations was performed using the Synchro 7.0 analysis software. These methodologies are consistent with City standards for traffic analysis.

UNSIGNALIZED INTERSECTIONS

Traffic flow operations based on the HCM methodology at intersections were evaluated using a LOS concept. The LOS concept uses a grading scale of "LOS A" through "LOS F" with "LOS A" representing free flowing conditions and "LOS F" representing forced flow conditions. The threshold for each LOS grade is provided in Table 4.14-1 (HCM LOS Criteria for Unsignalized Intersections).

Table 4.14-1
HCM Level of Service Criteria for Unsignalized Intersections

Level of Service	Description	Control Delay (seconds/vehicle)
A	Intersections operating at LOS A contain no congestion. The intersection operates with very little delay, from 0 to 10 seconds per vehicle.	0 – 10
B	Intersections operating at LOS B contain very little congestion. The intersection operates with minimal delay, from 10 to 15 seconds per vehicle.	>10 – 15
C	Intersections operating at LOS C contain little congestion. The intersection operates with some delay, from 15 to 25 seconds per vehicle.	>15 – 25
D	Intersections operating at LOS D contain some congestion. The intersection operates with longer delays, from 25 to 35 seconds per vehicle.	>25 – 35
E	Intersections operating at LOS E border on being congested. The intersection operates with delays from 35 to 50 seconds per vehicle.	>35 – 50
F	Intersections operating at LOS F contain congestion. The intersection operates with delays over 50 seconds.	>50

Source: Highway Capacity Manual, (2000), Chapter 17, Unsignalized Intersections, p. 17-2 and p. 17-22.

Factors used in determining intersection LOS vary depending on the control device at the intersection. For all-way (four-way) stop intersections, average delay per vehicle is used to define the LOS of the intersection operation. The average delay is determined based on the roadway capacity (number of travel lanes) provided on each intersection approach and traffic demand. For one and two-way stop controlled intersections, the operating efficiency of vehicle movements is analyzed. Vehicles on minor street approaches must yield to the through movements of the major streets. The LOS for stopped/yielding vehicles is based on the distribution of gaps in the traffic stream along the major street and driver judgment on the minor street approach in selecting gaps. The LOS reported includes both the overall or average value at the intersection for all movements and also the worst approach of the minor street stopped vehicles.

The HCM calculates the LOS of the minor street approaches and the overall intersection LOS based on this data. It should be noted that both the overall intersection LOS and the minor approach LOS are

provided in this EIR. This is because traffic on the minor street approaches has the lowest priority of right-of-way at the intersection and, therefore, is the most critical in terms of delay.

The LOS analysis at unsignalized intersections is supplemented with an assessment of the need for signalization of the intersection. The need for signalization at unsignalized intersections is assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD), Part 4, Highway Traffic Signals, 2010. This method makes no evaluation of intersection LOS, but simply provides an indication whether vehicular peak hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Additional analysis may include unsignalized LOS analysis and/or operational analysis such as evaluating vehicle queuing and delay. Other options such as traffic control devices, signage, or geometric changes may be preferable based on existing field conditions.

SIGNALIZED INTERSECTIONS

For signalized intersections, average control delay per vehicle is utilized to define intersection LOS. Delay is dependent on a number of factors including the signal cycle length, the roadway capacity (number of travel lanes) provided on each intersection approach and traffic demand. The threshold for each LOS grade is provided in Table 4.14-2 (HCM LOS Criteria for Signalized Intersections).

Table 4.14-2
HCM Level of Service Criteria for Signalized Intersections

Level of Service	Description	Control Delay (seconds/vehicle)
A	Intersections operating at LOS A contain no congestion. The intersection operates with very little delay, from 0 to 10 seconds per vehicle.	0 – 10
B	Intersections operating at LOS B contain very little congestion. The intersection operates with minimal delay, from 10 to 20 seconds per vehicle.	>10 – 20
C	Intersections operating at LOS C contain little congestion. The intersection operates with some delay, from 20 to 35 seconds per vehicle.	>20 – 35
D	Intersections operating at LOS D contain some congestion. The intersection operates with longer delays, from 35 to 55 seconds per vehicle.	>35 – 55
E	Intersections operating at LOS E border on being congested. The intersection operates with delays from 55 to 80 seconds per vehicle.	>55 – 80
F	Intersections operating at LOS F contain congestion. The intersection operates with delays over 80 seconds.	>80

Source: Highway Capacity Manual, (2000), Chapter 16, Signalized Intersections, p. 16-2.

FREEWAY SEGMENTS

For the freeway mainline segments, the LOS methodology in the Highway Capacity Manual-2000 (HCM-2000) uses density of vehicles expressed in passenger cars per mile per lane. This methodology is based on calculating density for each direction of travel, wherein the traffic volume for each segment per lane is divided by the speed of the segment. Table 4.14-3 (HCM Level of Service Criteria for Freeways) presents the densities for each level of service rating based upon a free flow speed (FFS) of 65 mph (posted speed limit).

Table 4.14-3
HCM Level of Service Criteria for Freeways (FFS = 65mph)

Level of Service	Description	Density (pc/mil/ln)
A	Free-flow operations in which vehicles are almost completely unimpeded in their ability to maneuver the traffic stream. The effects of incidents are easily absorbed at this level.	0 to 11
B	This represents reasonably free flow, and free-flow speeds are maintained. The ability to maneuver within the traffic stream is only slightly restricted. The effects of minor incidents are still easily absorbed.	11 to 18
C	Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require vigilance. Minor incidents may still be absorbed. Queues may be expected to form behind any significant blockage.	18 to 26
D	Speeds begin to decline slightly with increasing flows and density begins to increase somewhat more quickly. Freedom to maneuver within the traffic stream is more noticeably limited. Minor incidents can be expected to create queuing.	26 to 35
E	Operation near or at capacity. Vehicles are closely spaced and maneuverability within the traffic stream is extremely limited. Operations extremely volatile. Any disruption causes extensive queuing.	35 to 45
F	Breakdown in flow. Queues form behind breakdown points. Demand exceeds capacity.	> 45

Source: Highway Capacity Manual (2000), Chapter 23, Exhibit. 23-2.

LEVEL OF SERVICE STANDARDS

City of Tracy

The City has established LOS D, where feasible, as the minimum acceptable LOS for roadway and overall intersection operations. However, there are certain locations where this standard does not apply. The following provides a list and description of exceptions to the LOS standard of LOS C.

- Within ¼ mile of any freeway, LOS D shall be allowed on roadways and at intersections to discourage inter-regional traffic from using City streets
- In the Downtown and Bowtie area of Tracy, LOS E shall be allowed
- At intersections where construction of improvements is not feasible, the LOS may fall below the City's LOS C standard
- During construction of intersection improvements, the LOS may temporarily fall below the City's LOS C standard

County of San Joaquin

The County of San Joaquin has established LOS D as the minimum acceptable LOS for roadway and intersection operations.

Caltrans

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on all state highway facilities (i.e., freeway segments, signalized intersections, on- or off-ramps, etc.), however, Caltrans recognizes that it may not always be feasible.

SIGNIFICANCE CRITERIA

Significance criteria are used to identify Project impacts. Currently, the City, County and Caltrans have LOS thresholds. The following significance criteria were used for this EIR and are consistent with the thresholds used in the Holly Sugar Sports Park Final Environmental Impact Report (June 2010), Caltrans thresholds, SJCOG criteria, and Appendix G of the *CEQA Guidelines*. Accordingly, the proposed Project would have a significant traffic impact if any of the following would occur:

City of Tracy

Signalized Intersections

- Signalized intersections operating at an acceptable level (LOS D or better if located more than ¼ mile from a freeway and LOS D or better if located within ¼ mile of a freeway) degrade to an unacceptable LOS E or F.
- Addition of project trips causes a delay increase of more than four seconds to an intersection already operating at an unacceptable level.

Un-signalized Intersections

- Unsignalized intersections operating at LOS D or better degrade to an unacceptable LOS D or under (outside ¼ mile of a freeway), and LOS D or better degrade to an unacceptable LOS E or under (within ¼ mile of a freeway), and a traffic signal warrant is met.
- Addition of project trips causes a volume increase of more than 10 percent at an intersection operating at an unacceptable level and meeting a signal warrant.

San Joaquin County

Signalized Intersections

- Intersections operating at LOS D or better degrade to an unacceptable LOS E or F.

Un-signalized Intersections

- Unsignalized intersections worst movement/approach operating at LOS D or better degrade to an unacceptable LOS E or F.
- Addition of one project trip that causes an intersection operating at an unacceptable LOS E or F

Caltrans

- For intersections, the City significance criteria applies.
- A freeway segment operating at LOS D or better degrades to an unacceptable LOS E or under.
- Addition of project trips is greater than five percent of freeway segment already operating at an unacceptable LOS E or F.

CEQA

- Result in inadequate emergency access
- Result in inadequate parking capacity
- Conflict with adopted policies, plans or programs supporting alternative transportation.

4.14.3 EXISTING CONDITIONS

This section presents a description of traffic volumes, roadway network and intersection, and roadway segment LOS within the study area under Existing Conditions including approved developments but not built, under construction, or are built but not occupied and/or are expected to be occupied at approximately the same time as the proposed Project.

EXISTING CONDITIONS TRAFFIC VOLUMES AND LANE CONFIGURATIONS

Intersection turning movement counts were collected in December 2009 and October 2010. It should be noted that some of the study intersection traffic counts were more than a year old at the time of preparation of this traffic analysis. Thus, supplemental counts were performed at two critical locations in October 2010 to determine if new counts would be required for all of the study intersections. The October 2010 counts did not indicate growth that would significantly change the operational analysis and, therefore, the December 2009 counts were deemed appropriate for analysis. Traffic counts were performed during the weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM). As previously noted, the Project proposes commercial/retail use and traffic for this use is significantly higher during Saturday afternoons (12:00 to 2:00 PM). Thus traffic counts were also performed during this time period. For weekday peak hour analysis, intersections with the highest traffic volumes during the count period were identified. The morning peak hour generally occurred between 7:30 AM and 8:30 AM, afternoon peak hour between 4:30 PM and 5:30 PM, and Saturday peak hour between 12:30 PM and 1:30 PM Traffic count worksheet are included in the Appendix G. Existing traffic counts indicate that truck traffic is approximately five percent of the total vehicle traffic and is incorporated into LOS analysis. Figure 4.14-7 (Existing Weekday Peak Hour Traffic Volumes) shows weekday AM and PM traffic volumes, and Figure 4.14-8 (Existing Saturday Mid-Day Traffic Volumes) shows Saturday mid-day traffic volumes.

EXISTING CONDITIONS INTERSECTION TRAFFIC OPERATIONS WITHOUT PROJECT

The existing weekday AM and PM peak hour and Saturday peak hour data were used as the basis for intersection and roadway segment operations analysis. The Synchro analysis software program, which uses the HCM methodologies, was used to determine study intersection LOS for both weekday and Saturday peak hour. The result of the analysis for all the study intersections is summarized in Table 4.14-4 (Existing Conditions Peak Hour Intersection Level of Service). Review of these results indicates that the unsignalized intersections of Byron Road/Grant Line Road and Lammers Road /Grant Line Road operate at an unacceptable LOS F. The intersection of I-205 EB Off-Ramp/Grant Line Road operates at an

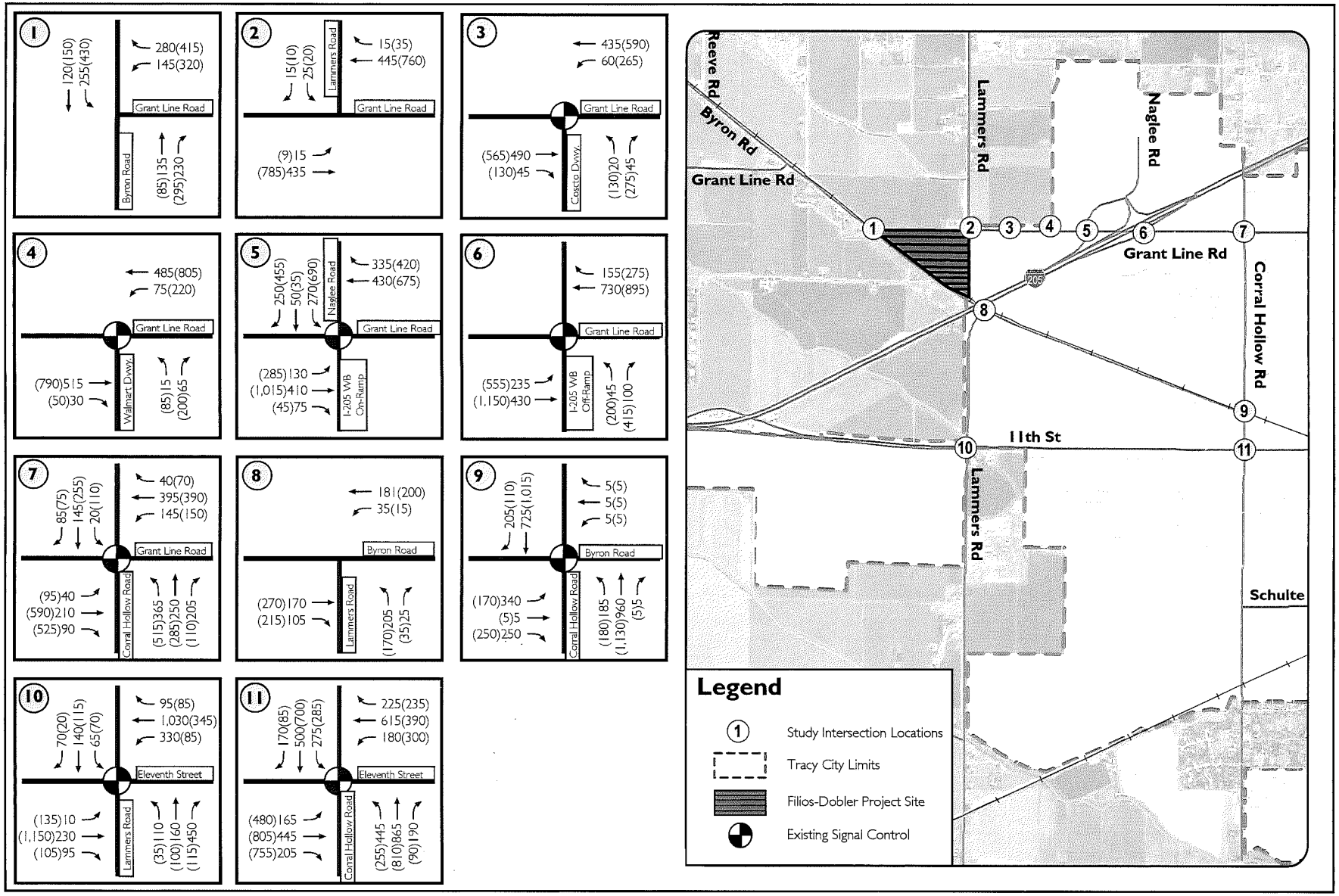
unacceptable LOS D, which could, however, be acceptable on a case-by-case basis. All other existing study intersections operate at an acceptable LOS C or better. Appendix G presents the LOS calculation worksheets for the existing conditions.

Table 4.14-4
Existing Conditions Peak Hour Intersection Level of Service

Intersection (Jurisdiction)	Control [1]	Peak Hour	Delay in Sec [2]	LOS
1. Byron Road/Grant Line Road (County)	SSS	AM	**>50 (>50)**	**F(F)**
		PM	**>50 (>50)**	**F(F)**
2. Lammers Road/Grant Line Road (County/City-With Project Annexation)	SSS	AM	0.9 (17.1)	A(C)
		PM	1.1 (**>50**)	B(**F**)
3. Costco Driveway/Grant Line Road (City)	Signal	AM	18.1	B
		PM	17.4	B
4. Wal-Mart Driveway/Grant Line Road (City)	Signal	AM	23.0	C
		PM	18.3	B
5. Naglee Road/I-205 WB On-Ramp/ Grant Line Road (City/Caltrans)	Signal	AM	14.0	B
		PM	19.5	C
		SAT	22.7	C
6. I-205 EB Off-Ramp/Grant Line Road (City/Caltrans)	Signal	AM	14.3	B
		PM	38.6	D
		SAT	24.5	C
7. Corral Hollow Road/Grant Line Road (City)	Signal	AM	17.2	B
		PM	22.7	C
8. Lammers Road/Byron Road (City)	AWS	AM	11.3	B
		PM	15.1	C
9. Corral Hollow Road/Byron Road (City)	Signal	AM	25.6	C
		PM	15.9	B
10. Lammers Road/Eleventh Street (City)	Signal	AM	25.8	C
		PM	15.5	B
11. Corral Hollow Road/Eleventh Street (City)	Signal	AM	27.6	C
		PM	28.0	C

Note:
1. Signal = signalized intersection, SSS = side street stop intersection (Existing control is SSS and a Signal with Improvement)
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach)
- Bold indicates deficient LOS per jurisdiction's criteria

Source: RBF Consulting 2011.



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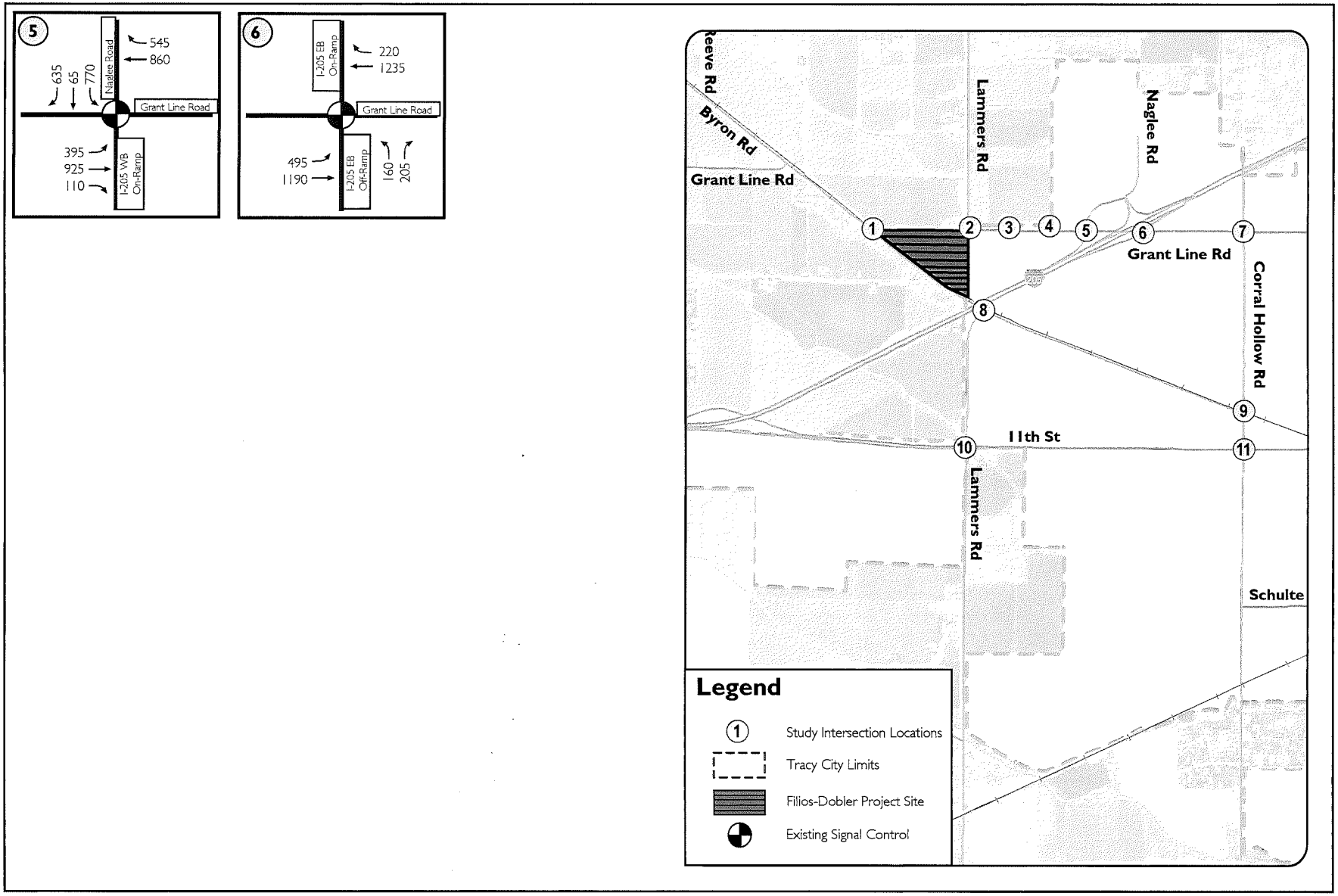
Existing Weekday AM(PM) Peak Hour Traffic Volumes

Figure 4.14-7



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Existing Saturday Mid-Day Traffic Volumes

Figure 4.14-8

EXISTING CONDITIONS INTERSECTION TRAFFIC OPERATIONS WITHOUT PROJECT (WITH PLANNED AND FUNDED IMPROVEMENTS)

As noted above, the Existing Conditions Without Project LOS results indicates that the unsignalized intersection of Byron Road/Grant Line Road and Lammers Road/Grant Line Road operate at an unacceptable LOS F. No improvements are planned by the City at the intersection of Lammers Road/Grant Line Road. The intersection of Byron Road/Grant Line Road is within the County and there is a planned and funded improvement to install a traffic signal and add a westbound right turn lane (refer to Appendix G). Table 4.14-5 (Existing Conditions Peak Hour Intersection Level of Service with Improvement) shows the LOS results with this planned improvement included. For all future conditions analysis, this improvement is assumed to be in place. Appendix G presents the LOS calculation worksheets for the existing conditions with improvement.

Table 4.14-5
Existing Conditions Peak Hour Intersection Level of Service with Planned Improvement

Intersection	Control[1]	Peak Hour	Existing		Existing With Signalization	
			Delay in Sec[2]	LOS	Delay in Sec[2]	LOS
1. Byron Road/Grant Line Road	SSS / Signal	AM	**>50 (>50)**	**F(F)**	15.2	B
		PM	**>50 (>50)**	**F(F)**	20.3	C

Note:
1. Signal = signalized intersection, SSS = side street stop intersection (Existing control is SSS and a Signal with Improvement)
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach)
- Bold indicates deficient LOS per jurisdiction's criteria

Source: RBF Consulting 2011.

EXISTING CONDITIONS FREEWAY SEGMENT CAPACITY ANALYSIS

Freeway operations were calculated based on freeway densities (passenger cars/mile/lane) previously discussed. Table 4.14-6 (Existing Conditions Freeway Segment Level of Service) summarizes existing conditions on I-205 based on freeway volumes obtained from the TDM. TDM plots are included in Appendix G. Based on these volumes, density and LOS were calculated per HCM methodology. The results for the weekday AM and PM peak hour along the study segments indicate that all study segments operate acceptably at LOS D or better.

Table 4.14-6
Existing Conditions Freeway Segment Level of Service

I-205 Freeway Segment Between	Peak Hour	Direction	Number of Lanes	Volume	Density (pc/mi/ln)	LOS
A. Mountain House Parkway and Eleventh Street	AM	WB	3	5353	27	D
		EB	3	2058	11	B
	PM	WB	3	2395	12	B
		EB	3	4954	25	C
B. Eleventh Street and Grant Line Road	AM	WB	3	3500	18	B
		EB	3	1694	9	A
	PM	WB	3	1967	10	A
		EB	3	3552	18	B
C. Grant Line Road and Tracy Boulevard	AM	WB	3	3497	18	B
		EB	3	1845	9	A
	PM	WB	3	1989	10	A

I-205 Freeway Segment Between	Peak Hour	Direction	Number of Lanes	Volume	Density (pc/mi/ln)	LOS
		EB	3	3413	18	B
Source: RBF Consulting 2011						

4.14.4 NEAR TERM CONDITIONS (2015)

This section presents a description of traffic volumes, roadway network and intersection, and roadway segment LOS within the study area at the time of anticipated Project buildout. The roadway network for this scenario includes the existing roadway network discussed in Existing Conditions plus planned funded improvements at any of the study intersections and/or along freeway segments. As discussed in the Existing Conditions, the County has a planned and funded improvement to install a traffic signal and add a westbound right turn lane at the intersection of Lammers Road /Grant Line Road. In addition, the City has a planned and funded improvement to install a traffic signal at the intersection of Byron Road/Lammers Road. These improvements are planned to occur within the next two years and, thus, are included in the Near Term 2015 scenario. All other study intersections and roadway networks were evaluated with the same lane configurations.

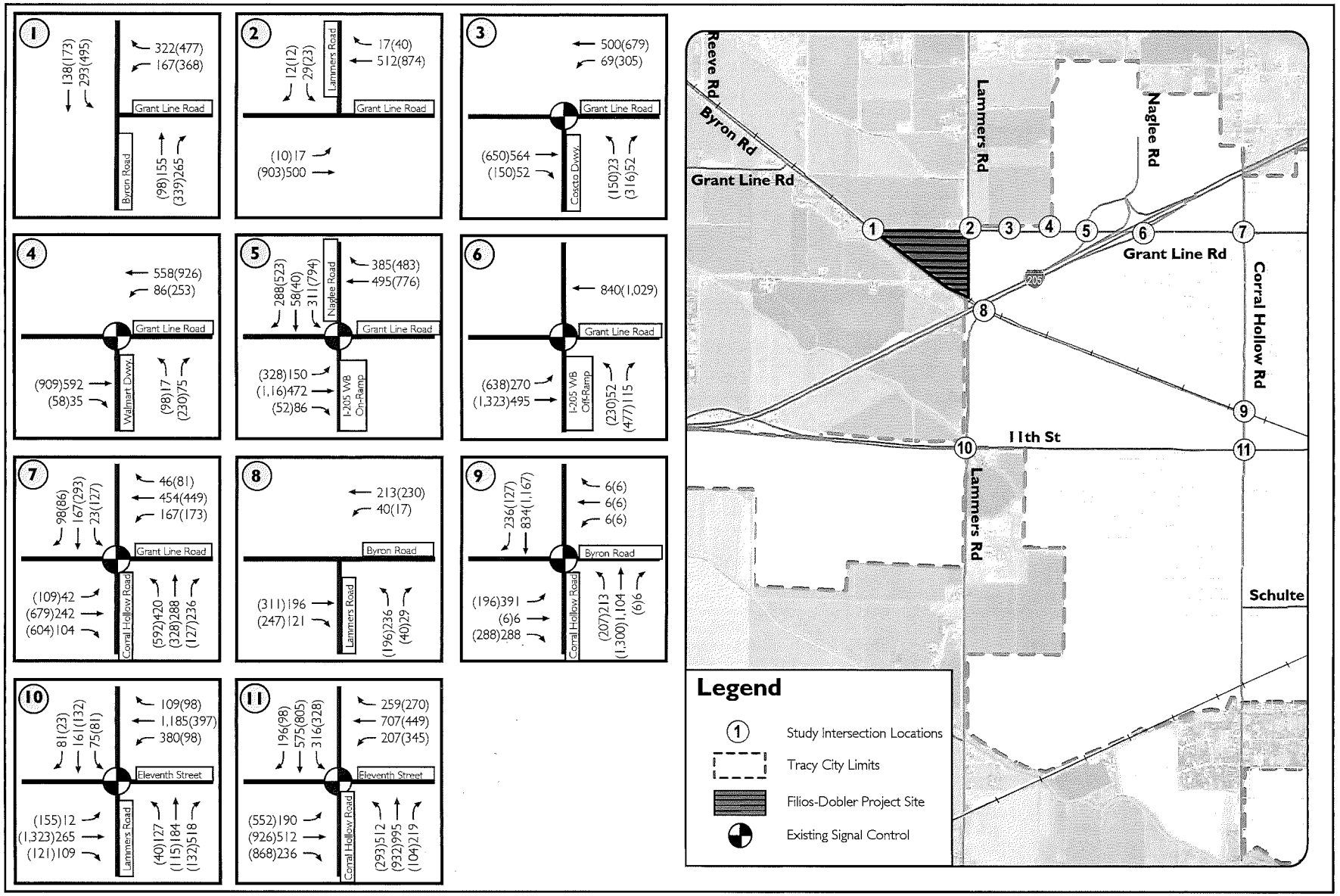
NEAR TERM CONDITIONS TRAFFIC VOLUMES AND OPERATIONS

Buildout of the proposed Project is expected to occur by the end of 2015. To assess likely future traffic conditions regardless of the proposed Project, increases in traffic due to general growth and other proposed developments near the site were estimated. In discussions with the City staff, no other significant approved/proposed developments were identified that should be considered individually. To determine an appropriate growth to account for an increase in traffic over the next five years (Project buildout year-2015), traffic volumes from the regional TDM were reviewed. Table 4.14-7 (Near Term Conditions Growth Estimate) shows 2010 and 2030 AM and PM traffic volumes and a "straight line" percent growth estimate of traffic. The growth indicates an approximate annual increase of three percent during both the AM and PM peak hour.

Table 4.14-7
Near Term Conditions Growth Estimate

Tracy Model Trips	2010	2030	Growth Factor	Per Year	5 Year Growth
Weekday AM	270,662	426,385	58%	2.9%	14.5%
Weekday PM	399,967	640,979	60%	3.0%	15%
Saturday Mid-day[1]					15%
Note: 1. Saturday growth factor is assumed to be the same as the weekday					

This average annual growth rate was applied to the existing 2010 counts to estimate Near Term 2015 traffic volumes. The City's TDM is calibrated for weekday AM, PM and daily forecasts, but not for a Saturday forecast. Thus, to be conservative, the same weekday growth factor was applied to the existing Saturday 2010 counts to estimate Near Term 2015 Saturday traffic volumes. Consequently, existing volumes in Figure 4.14-7 and Figure 4.14-8 were increased by 15 percent (5 years x 3 percent per year = 15 percent). Figure 4.14-9 (Near Term Weekday Peak Hour Traffic Volumes) and Figure 4.14-10 (Near Term Saturday Mid-Day Traffic Volumes) show the resulting estimated weekday and Saturday future peak hour traffic volumes, with the analysis results shown in Table 4.14-8 (Near Term Conditions Peak Hour Intersection Level of Service). Appendix G presents the LOS calculation worksheets for the Near



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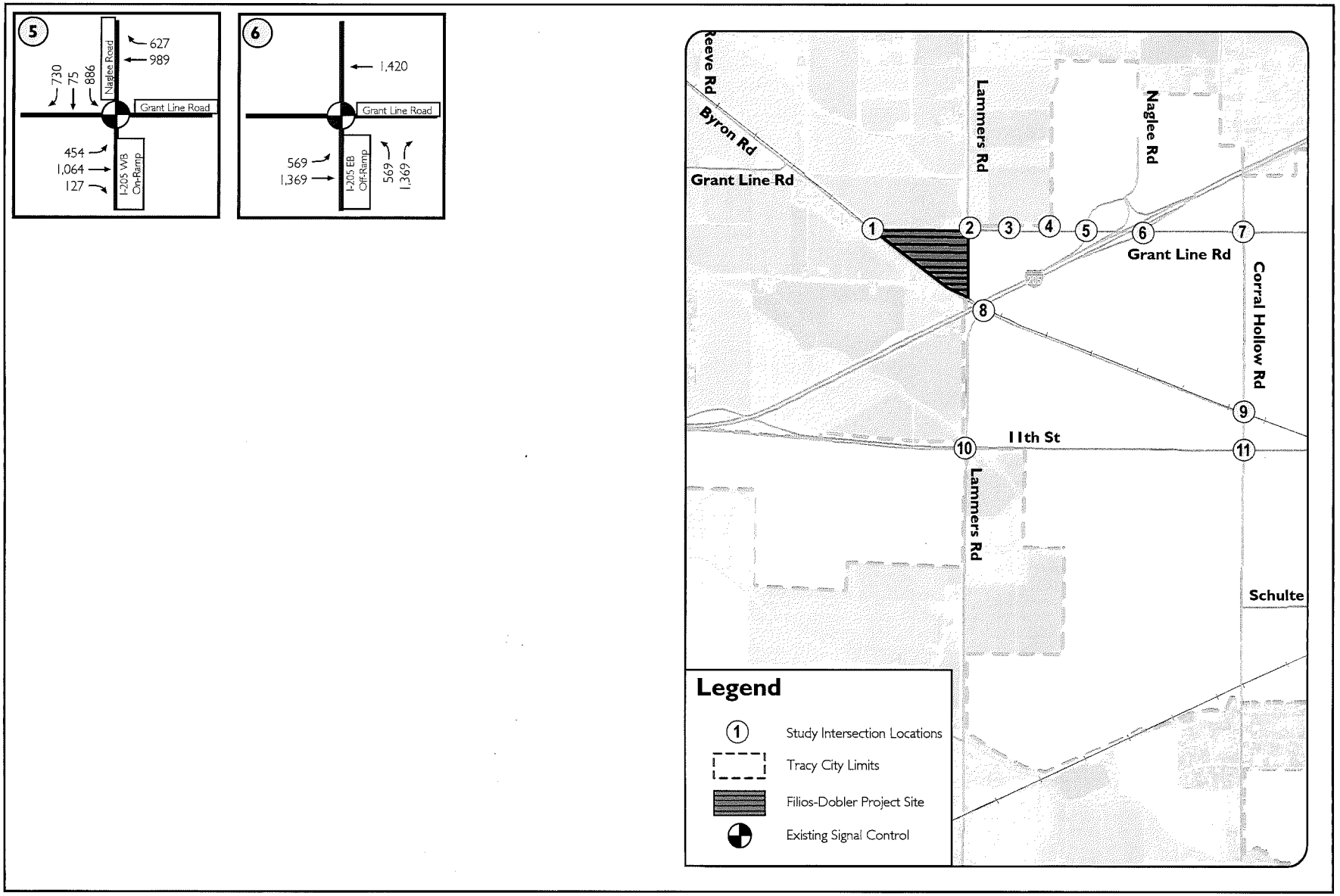
Near Term Weekday AM(PM) Peak Hour Traffic Volumes

Figure 4.14-9



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Near Term Saturday Mid-Day Traffic Volumes

Figure 4.14-10

Term Conditions. The analysis results indicate that all study signalized intersections would operate at LOS D or better except I-205 EB Off-Ramp/Grant Line Road, Corral Hollow Road/Byron Road and Corral Hollow Road/Eleventh Street intersections, which are estimated to operate at LOS E or better during one or both peak hours analyzed. The worst movement at the unsignalized intersection of Lammers Road/Grant Line Road is projected to operate at LOS F during the PM peak hour.

Table 4.14-8
Near Term Conditions Peak Hour Intersection Level of Service

Intersection (Jurisdiction)	Control[1]	Peak Hour	Delay in Sec[2]	LOS
1. Byron Road/Grant Line Road (County)	Signal	AM	17.6	B
		PM	29.9	C
2. Lammers Road/Grant Line Road (County/City-With Project Annexation)	SSS	AM	1.1 (21.1)	A(C)
		PM	2.2 (**>50**)	C(**F**)
3. Costco Driveway/Grant Line Road (City)	Signal	AM	18.7	B
		PM	17.2	B
4. Wal-Mart Driveway/Grant Line Road (City)	Signal	AM	23.4	C
		PM	18.1	B
5. Naglee Road/I-205 WB On-Ramp/ Grant Line Road (City/Caltrans)	Signal	AM	15.5	B
		PM	21.1	C
		SAT	27.1	C
6. I-205 EB Off-Ramp/Grant Line Road (City/Caltrans)	Signal	AM	15.5	B
		PM	**66.0**	**E**
		SAT	51.9	D
7. Corral Hollow Road/Grant Line Road (City)	Signal	AM	18.7	B
		PM	28.6	C
8. Lammers Road/Byron Road (City)	Signal	AM	11.6	B
		PM	14.5	B
9. Corral Hollow Road/Byron Road (City)	Signal	AM	41.0	D
		PM	20.6	C
10. Lammers Road/Eleventh Street (City)	Signal	AM	24.7	C
		PM	18.8	B
11. Corral Hollow Road/Eleventh Street (City)	Signal	AM	32.7	C
		PM	37.0	D

Note:
1. Signal = signalized intersection, SSS = side street stop intersection
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach)
- Bold indicates deficient LOS per jurisdiction's criteria

Source: RBF Consulting 2011.

NEAR TERM CONDITIONS FREEWAY SEGMENT CAPACITY ANALYSIS

Table 4.14-9 (Near Term Conditions Freeway Segment Level of Service) summarizes the Near Term Conditions I-205 freeway segment volumes. Similar to the intersection counts estimate, freeway volumes were also estimated by applying an annual increase of three percent growth during both weekday AM and PM peak hour and Saturday Mid-day peak hour. This approach is valid and conservative as the TDM

indicated freeway segment traffic to increase by approximately two percent per year. Based on these estimated volumes, density and LOS were calculated per the HCM methodology. The results of the analysis indicate that all study segments would operate acceptably at LOS D or better.

Table 4.14-9
Near Term Conditions Freeway Segment Level of Service

I-205 Freeway Segment Between	Peak Hour	Direction	Volume	Density (pc/mil/ln)	LOS
A. Mountain House Parkway and Eleventh Street	AM	WB	6156	32	D
		EB	2367	12	B
	PM	WB	2754	14	B
		EB	5697	29	D
B. Eleventh Street and Grant Line Road	AM	WB	4025	21	C
		EB	1948	10	A
	PM	WB	2262	12	B
		EB	4085	21	C
C. Grant Line Road and Tracy Boulevard	AM	WB	4022	21	C
		EB	2122	11	A
	PM	WB	2287	12	B
		EB	3925	20	B

Source: RBF Consulting 2011.

4.14.5 CUMULATIVE CONDITIONS (2030)

Cumulative Conditions 2030 represent buildout of City General Plan conditions without the proposed Project. This section presents the 2030 roadway network as identified in the General Plan. The required roadway network for 2030 without Project will form the basis for evaluating Project's impact.

GENERAL PLAN 2030 TRANSPORTATION SYSTEM IMPROVEMENTS

Roadway improvements consistent with the City General Plan are included in the Cumulative roadway network. These improvements were identified as mitigation for General Plan buildout, including the Project. The Cumulative roadway network is shown on Figure 4.14-3. New planned widening/new roadways identified in the City General Plan within the study area are listed below.

Planned Roadway Widening:

- Lammers Road (between Eleventh Street and Linne Road) - Widening from two to six lanes.
- Lammers Road (between Grant Line Road and Middle Road) - Widening from two to four lanes. Signalization of the Lammers Road/Grant Line Road intersection is assumed with the planned widening.
- Corral Hollow Road (between W Schulte Road and Kavanagh Avenue) - Widening from two to six lanes.
- Grant Line Road (between Byron Road and Lammers Road) - Widening from two to six lanes.
- Grant Line Road (between Lammers Road and Tracy Boulevard) - Widening from four to six lanes.

- Eleventh Street (between I-205 Ramps and Lammers Road) - Widening from four to six lanes.
- Byron Road (between Mountain House Parkway and Grant Line Road) - Widening from two to four lanes.
- I-205 (within the City) - Widening from three to four lanes in each direction.

Planned New Roadways:

- Extension of Lammers Road north of Eleventh Street including a new interchange at I-205, and removal of existing Eleventh Street "partial cloverleaf" interchange. As part of this new interchange, Eleventh Street would be realigned as a six-lane arterial roadway with an overcrossing of I-205 and would extend north to Grant Line Road and Byron Road. The new interchange would be located approximately 2.5 miles east of the Mountain House Parkway interchange and 1.3 miles west of the Grant Line Road interchange.
- Revised access to Von Sosten Road at Lammers Road, extension of Commerce Way north of Eleventh Street to connect with the new alignment south of I-205.
- Pavillion Parkway extension to the west to connect with W. Grant Line Road via an overcrossing at Byron Road.
- Grant Line Road extension to the west to connect with W. Grant Line Road via an overcrossing at Byron Road.

The above improvements were utilized to evaluate Cumulative Conditions LOS.

CUMULATIVE CONDITIONS TRAFFIC VOLUMES

This analysis was performed for full buildout of the City General Plan and adjacent communities within the County as identified in the San Joaquin Council of Governments (SJCOG) regional TDM. Traffic forecasts for this scenario were prepared by Fehr and Peers using the City TDM, which was updated in 2010 to be consistent with the current SJCOG regional TDM.

Figure 4.14-11 (Cumulative Weekday Peak Hour Traffic Volumes) shows Cumulative Conditions lane configuration and weekday AM and PM peak hour traffic volumes. As previously noted, the City's TDM is calibrated only for weekday AM, PM and daily forecasts, not a Saturday forecast. Thus, to estimate Cumulative Conditions for the Saturday mid-day peak hour, a factor developed using the existing weekday PM peak hour and the Saturday mid-day peak hour was applied to Cumulative Conditions weekday PM peak hour. Figure 4.14-12 (Cumulative Saturday Mid-Day Traffic Volumes) shows Cumulative Conditions Saturday mid-day peak hour traffic volumes.

CUMULATIVE CONDITIONS INTERSECTION TRAFFIC OPERATIONS WITH FUTURE LANE CONFIGURATION

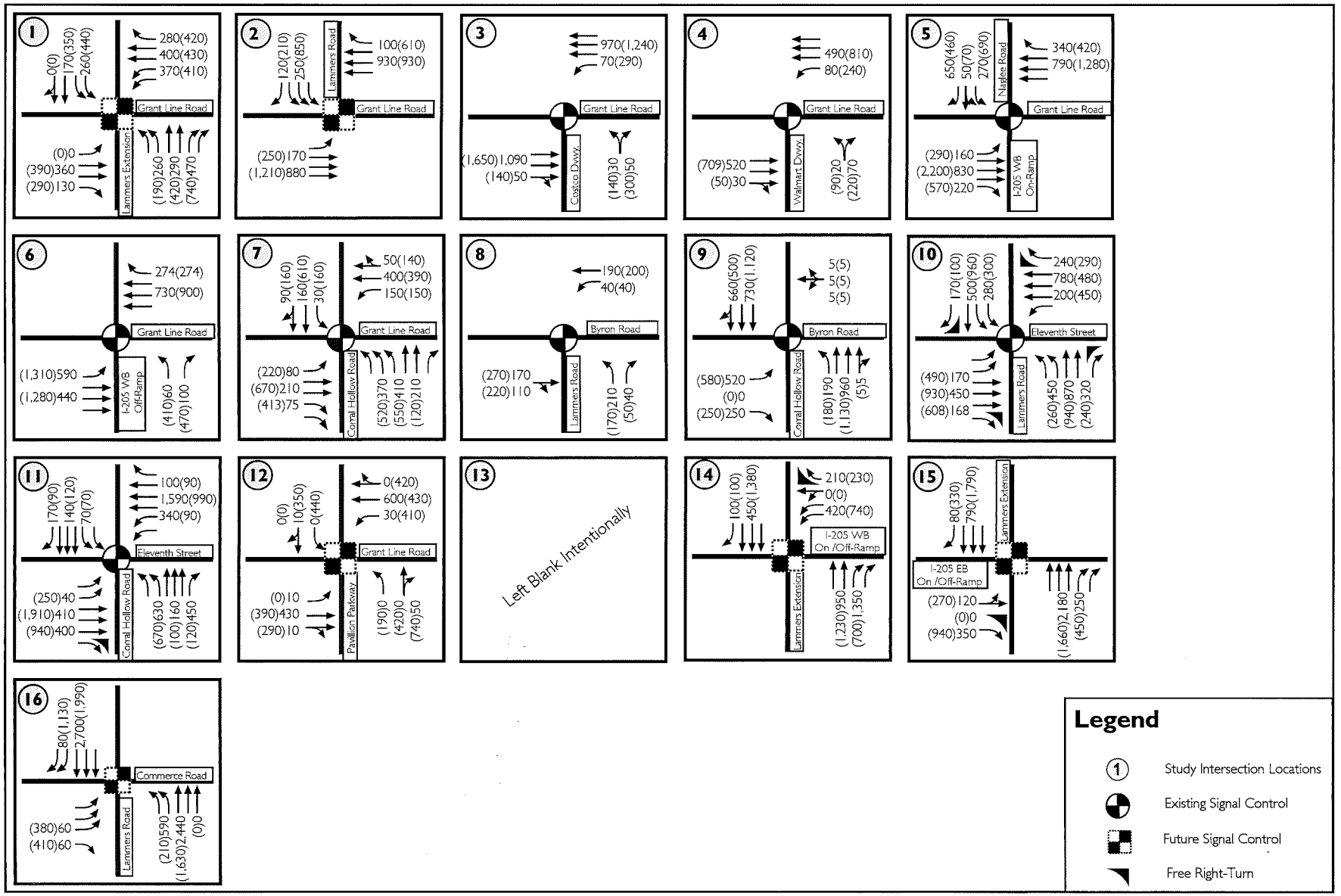
The Cumulative Conditions forecasted traffic volumes were used to evaluate traffic operations without the project. The intersection and freeway segment traffic operation analysis were performed using the same methodology discussed earlier. The intersection analysis results are shown in Table 4.14-10 (Cumulative Conditions Peak Hour Intersection Level of Service). The results indicate that 12 of the 15 Cumulative Conditions study intersections are estimated to operate within the significance criteria except the intersections of I-205 EB Off-Ramp/Grant Line Road, Corral Hollow Road/Byron Road and Corral Hollow Road/Eleventh Street. Appendix G presents the LOS calculation worksheets for Cumulative Conditions.

Table 4.14-10
Cumulative Conditions Peak Hour Intersection Level of Service

Intersection	Control[1]	Peak Hour	Delay in Sec[2]	LOS
1. Byron Road/Grant Line Road (County)	Signal	AM	26.1	C
		PM	27.3	C
2. Lammers Road/Grant Line Road (County/City-With Project Annexation)	Signal	AM	9.7	A
		PM	17.5	B
3. Costco Driveway/Grant Line Road (City) (Main entrance driveway)[3]	Signal	AM	16.7	B
		PM	19.0	B
4. Wal-Mart Driveway/Grant Line Road (City)	Signal	AM	32.5	C
		PM	30.1	C
5. Naglee Road/I-205 WB On-Ramp/ Grant Line Road (City/Caltrans)	Signal	AM	18.0	B
		PM	18.0	B
		SAT	24.3	C
6. I-205 EB Off-Ramp/Grant Line Road (City/Caltrans)	Signal	AM	23.4	C
		PM	**>80**	**F**
		SAT	**>80**	**F**
7. Corral Hollow Road/Grant Line Road (City)	Signal	AM	18.8	B
		PM	33.1	C
8. Lammers Road/Byron Road (City)	Signal	AM	10.0	B
		PM	11.4	B
9. Corral Hollow Road/Byron Road (City)	Signal	AM	27.6	C
		PM	35.8	D
10. Lammers Road/Eleventh Street (City)	Signal	AM	25.9	C
		PM	27.0	C
11. Corral Hollow Road/Eleventh Street (City)	Signal	AM	22.6	C
		PM	27.4	C
12. Grant Line Road Extension/Pavilion Parkway (City)	Signal	AM	8.8	A
		PM	18.4	B
13.		Intentionally Left Blank		
14. Lammers Road Extension/I-205 EB On & Off Ramps (City)	Signal	AM	6.5	A
		PM	8.5	A
		SAT	9.4	A
15. Lammers Road Extension/I-205 WB On & Off Ramps (City)	Signal	AM	7.6	A
		PM	7.2	A
		SAT	8.8	A
16. Lammers Road Extension/Commerce Way (City)	Signal	AM	7.7	A
		PM	19.9	B

Note:
1. Signal = signalized intersection, SSS = side street stop intersection
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach)
3. Not truck entrance
- Bold indicates deficient LOS per jurisdiction's criteria

Source: RBF Consulting 2011.



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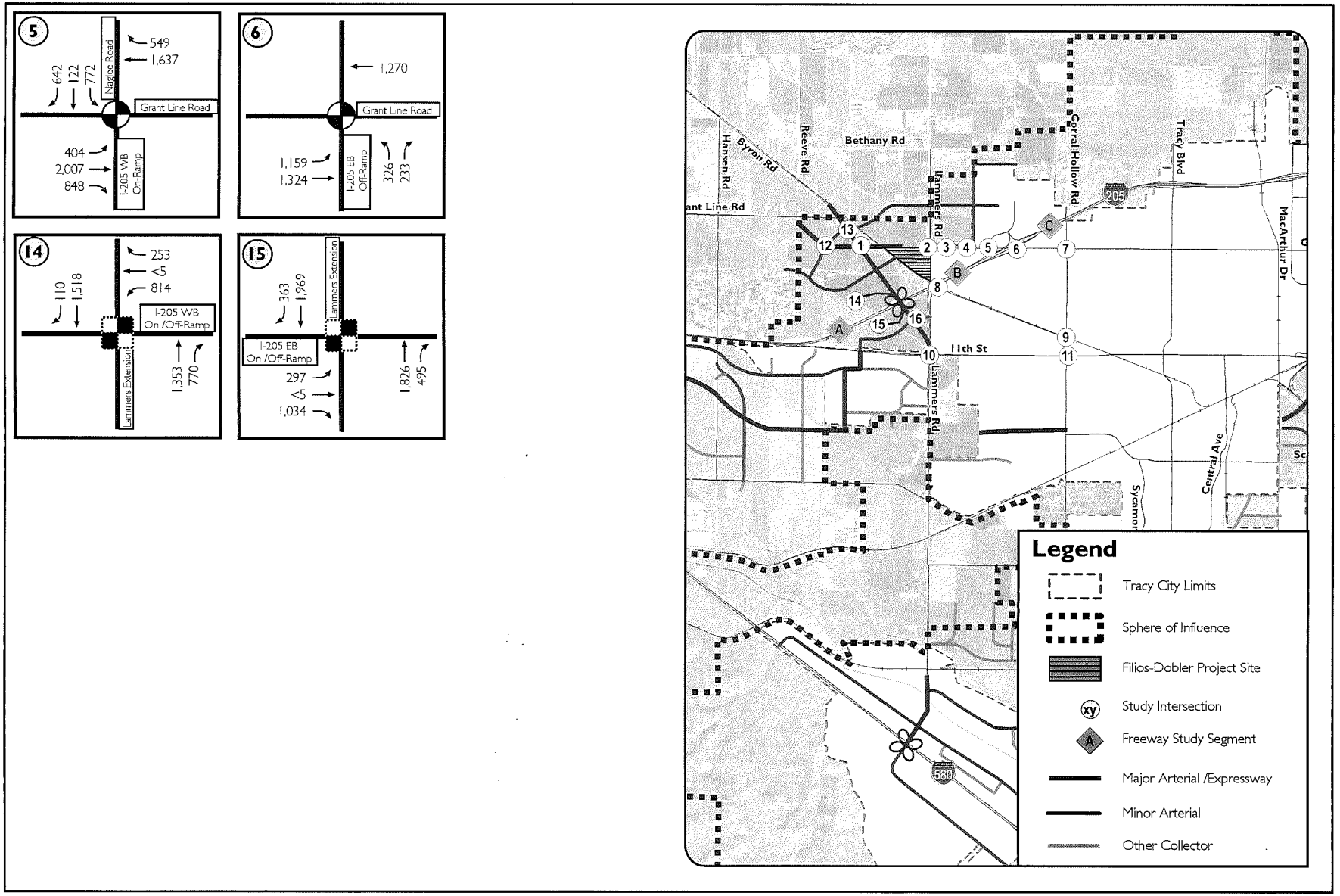
Cumulative Weekday AM(PM) Peak Hour Traffic Volumes

Figure 4.14-11



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Cumulative Saturday Mid-Day Traffic Volumes

Figure 4.14-12

CUMULATIVE CONDITIONS FREEWAY SEGMENT CAPACITY ANALYSIS

Cumulative Conditions freeway traffic volumes were obtained using the City TDM. The I-205 TDM plots are attached in Appendix G. Table 4.14-11 (Cumulative Conditions Freeway Segment Level of Service) summarizes the Cumulative Conditions I-205 freeway segment traffic volumes, which would be widened to four lanes per direction with buildout of the City General Plan. Density and LOS were calculated per HCM methodology. The results of the analysis indicate that all study segments would operate acceptably at LOS C or better.

Table 4.14-11
Cumulative Conditions Freeway Segment Level of Service

I-205 Freeway Segment Between	Peak Hour	Direction	Volume	Density (pc/mil/ln)	LOS
A. Mountain House Parkway and Lammers Extension	AM	WB	6860	26	C
		EB	2718	10	A
	PM	WB	3554	14	B
		EB	6577	25	C
B. Lammers Extension and Grant Line Road	AM	WB	5982	23	C
		EB	2517	10	A
	PM	WB	4051	16	B
		EB	6472	25	C
C. Grant Line Road and Tracy Boulevard	AM	WB	6756	26	C
		EB	3003	12	B
	PM	WB	3650	14	B
		EB	6859	26	C

Source: RBF Consulting 2011.

4.14.6 PROJECT TRAFFIC CHARACTERISTICS

Determining the Project traffic characteristics is a multi-step process. The first step is trip generation, which estimates the net new and pass-by trips arriving and departing during a peak hour and on a daily basis. The second step is traffic distribution, which identifies origins and destinations of arriving and departing traffic, and is based on area demographics and existing/expected future travel patterns in the study area. The third step is traffic assignment, which involves the allocation of traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds.

With the forecasting process complete and Project traffic assignments developed, the impact of the Project is isolated by comparing operational (LOS) conditions at selected study intersections using calculated future traffic volumes with and without Project traffic. If necessary, the need for site-specific and/or cumulative local area traffic improvements can then be evaluated.

PROJECT TRIP GENERATION

The number of vehicle trips that would be generated by the proposed Project were estimated using the appropriate trip generation rate/equation in the Institute of Transportation Engineer (ITE) Trip Generation, Eighth Edition, 2008. The data contained in this report is provided through empirical research. Thus, for the most common land uses there are standard trip generation rates that can be applied to estimate project traffic during both weekdays and Saturday peak hours.

Vehicle Trips To/From Office

The number of vehicle trips that would be generated by the proposed Project's office use were estimated using ITE Land Use Code 710. Overall, the office use would generate 1,402 daily trips, with 198 trips (174 inbound and 24 outbound) occurring during the AM peak hour and 198 trips (34 inbound and 164 outbound) occurring during the PM peak hour. However, because of the Project proposes a mixed-use development, a proportion of office generated trips would be captured internally (i.e., the origin and destination of these trips would be to /from the commercial use onsite). Thus, the trips are discounted from the external site generated trips. For mixed-use development projects, Chapter 7 of the ITE Trip Generation Handbook (2nd Edition, 2004) outlines a procedure for estimating the proportion of trips that remain within the development (i.e., the internal capture rate). Internal trips are calculated only for daily and PM peak hour trips. After discounting for internal trips, it is estimated that the Project's office use would generate a total of 1,143 daily external trips, with 198 trips (174 inbound and 24 outbound) occurring during the AM peak hour and 173 trips (23 inbound and 149 outbound) occurring during the PM peak hour. On a Saturday, the proposed office use is estimated to generate a total of 253 trips, with 44 trips (24 inbound and 20 outbound) occurring during the mid-day peak hour. The trip generation estimate is presented in Table 4.14-12 (Project Trip Generation).

Vehicle Trips To/From Commercial

The number of vehicle trips that would be generated by the proposed Project's commercial use was estimated using ITE Land Use Code 820. Overall, the commercial use would generate 15,595 daily trips, with 328 trips (200 inbound and 128 outbound) occurring during the AM peak hour and 1,499 trips (735 inbound and 764 outbound) occurring during the PM peak hour.

Similar to the office use, the commercial use would have trip interaction with office. However, per the ITE Trip Generation Handbook (2nd Edition, 2004), the discount can only be applied to the site with the lower value, that is, the ability to generate internal trips for a commercial use is greater but the office use would only receive a proportion of these trips.

Furthermore, due to the nature of the commercial land use and the location of the Project site, a full understanding of the types of trips that would be traveling to/from the Project's commercial use is necessary. In evaluating the future trips that would be generated by Project's commercial use, it is important to realize that a significant percentage of the total vehicle trips to/from a retail use, such as proposed by the Project, would come from vehicles that are already on the road making trips for other purposes such as traveling to/from work, shopping at other retail sites, such as Costco and Walmart, along Grant Line Road. The ITE Trip Generation Handbook, 2nd Edition, indicates that for a shopping center (Land Use Code 820) 34 percent of the weekday external trips and 26 percent of the total Saturday trips are pass-by-trips. Thus, after discounting for internal trips and pass-by trips, it is estimated that the Project's commercial use would generate a total of 15,336 daily external trips, with 328 trips (200 inbound and 128 outbound) occurring during the AM peak hour and 973 trips (470 inbound and 503 outbound) occurring during the PM peak hour.

Finally, it should be noted that the pass-by trips are included in the analysis of the Project driveways that would enter and exit the site, but are not considered "new" trips added to the street system by the Project. Detailed trip generation calculation and internal capture worksheets are provided in Appendix G.

As shown in Table 4.14-12, based on the ITE trip estimates, and internal and pass-by trip reduction, it is estimated that the proposed Project would generate a total of 15,977 daily external trips, with 526 trips (374 inbound and 152 outbound) occurring during the AM peak hour and 1,145 trips (493 inbound and

652 outbound) occurring during the PM peak hour. On a Saturday, the Project would generate a total of 20,935 trips, with 1,343 trips (712 inbound and 630 outbound) occurring during the mid-day peak hour.

PROJECT TRIP DISTRIBUTION

The distribution of Project trips arriving and departing the site is a function of several variables. These include population densities, shopping opportunities, existing and future travel patterns, the traffic-carrying capacity and travel speed available on roadways serving a site, and ingress/egress availability at the site. The City TDM, which incorporates the SJCOG regional TDM, was used to determine the Project trip distribution along the roadway network in the vicinity of the Project site. The directional traffic distribution patterns at the study intersections for the Existing Conditions and Cumulative Conditions are presented in Figure 4.14-13 (Existing Project Trip Distribution) and Figure 4.14-14 (Cumulative Project Trip Distribution), respectively.

PROJECT TRIP ASSIGNMENT

The peak-hour trips generated by the proposed Project were assigned to the roadway system in accordance with the trip distribution pattern discussed above. Figure 4.14-15 through Figure 4.14-18 show the Project trip assignment.

PROJECT PARKING, EMERGENCY ACCESS AND ALTERNATIVE TRANSPORTATION

The City has not received an application for specific improvements to the Project site. Thus, no site plan has been provided or is evaluated as part of this EIR. Future development of the Project site would require compliance with City standards. The following requirements would be addressed during the development permit/site plan approval process for the Project:

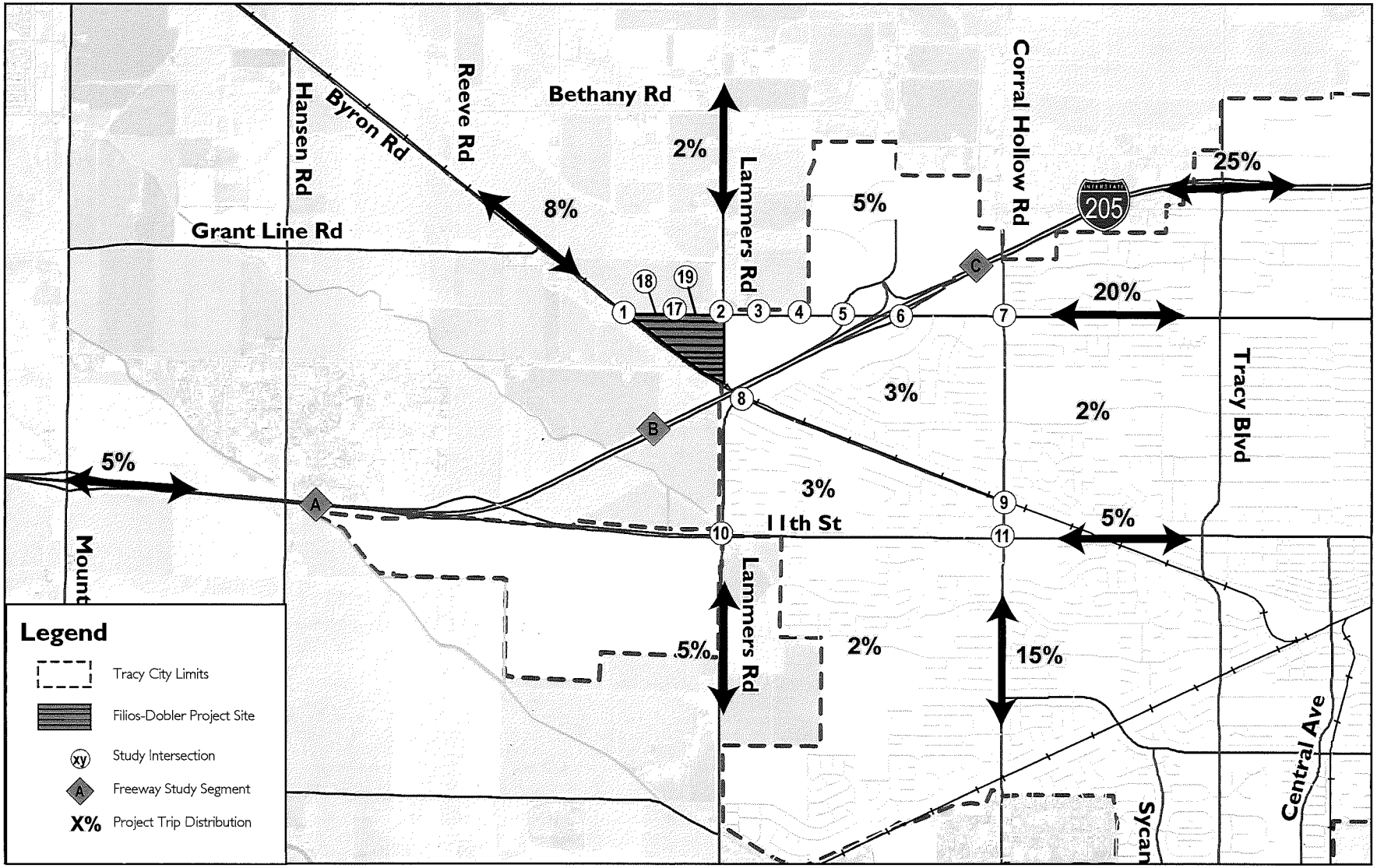
- Parking: Parking would be provided per the requirements of the I-205 Specific Plan.
- Emergency Access: During site plan review, City requirements for emergency access would be adhered to.
- Alternative Transportation: The site plan would include access and walkways for pedestrians and bicycles and show how these facilities connect to the local citywide transit facilities and bicycle facilities.

Table 4.14-12
Project Trip Generation

Land Use		ITE Code	Size (Sq ft)	Daily Trips			AM Peak Hour			PM Peak Hour			Saturday Trips		Mid-Day Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total			In	Out	Total
Option I (General Office - 17% and Shopping Center - 83%)																	
A) General Office		710	106,700	701	701	1,402	174	24	198	34	164	198		253	24	20	44
Internal Reduction*				105	154	259	n/a	n/a	n/a	11	15	25			n/a	n/a	n/a
Net Office External Trips				596	547	1,143	174	24	198	23	149	173		253	24	20	44
B) Shopping Center		820	359,300	7,797	7,798	15,595	200	128	328	735	764	1,499		20,682	1,023	945	1,968
Internal Reduction*				154	105	259	n/a	n/a	n/a	15	11	25			n/a	n/a	n/a
Net Shopping Center External Trips				7,643	7,693	15,336	200	128	328	720	753	1,474		20,682	1,023	945	1,968
Shopping Center Pass-By Trips	-34%			(251)	(251)	(501)	n/a	n/a	n/a	(251)	(251)	(501)	-26%	-	(335)	(335)	(669)
Shopping Center Net New Trips	66%			7,392	7,442	14,835	200	128	328	470	503	973	74%	-	688	610	1,299
Total Filios-Dobler Trips			***466,000***	***7,988***	***7,989***	***15,977***	***374***	***152***	***526***	***493***	***652***	***1,145***		***20,935***	***712***	***630***	***1,343***

* Internal Reduction - See Internal Capture Worksheet

Note: ITE average trip generation rates and ITE fitted curve equations were utilized to calculate daily and PM peak hour trips. The trips are representative of the project and present a realistic worst case trip generation scenario. Trip reductions were calculated utilizing the ITE trip Generation Handbook methodologies (calculation are included in the Appendix G).



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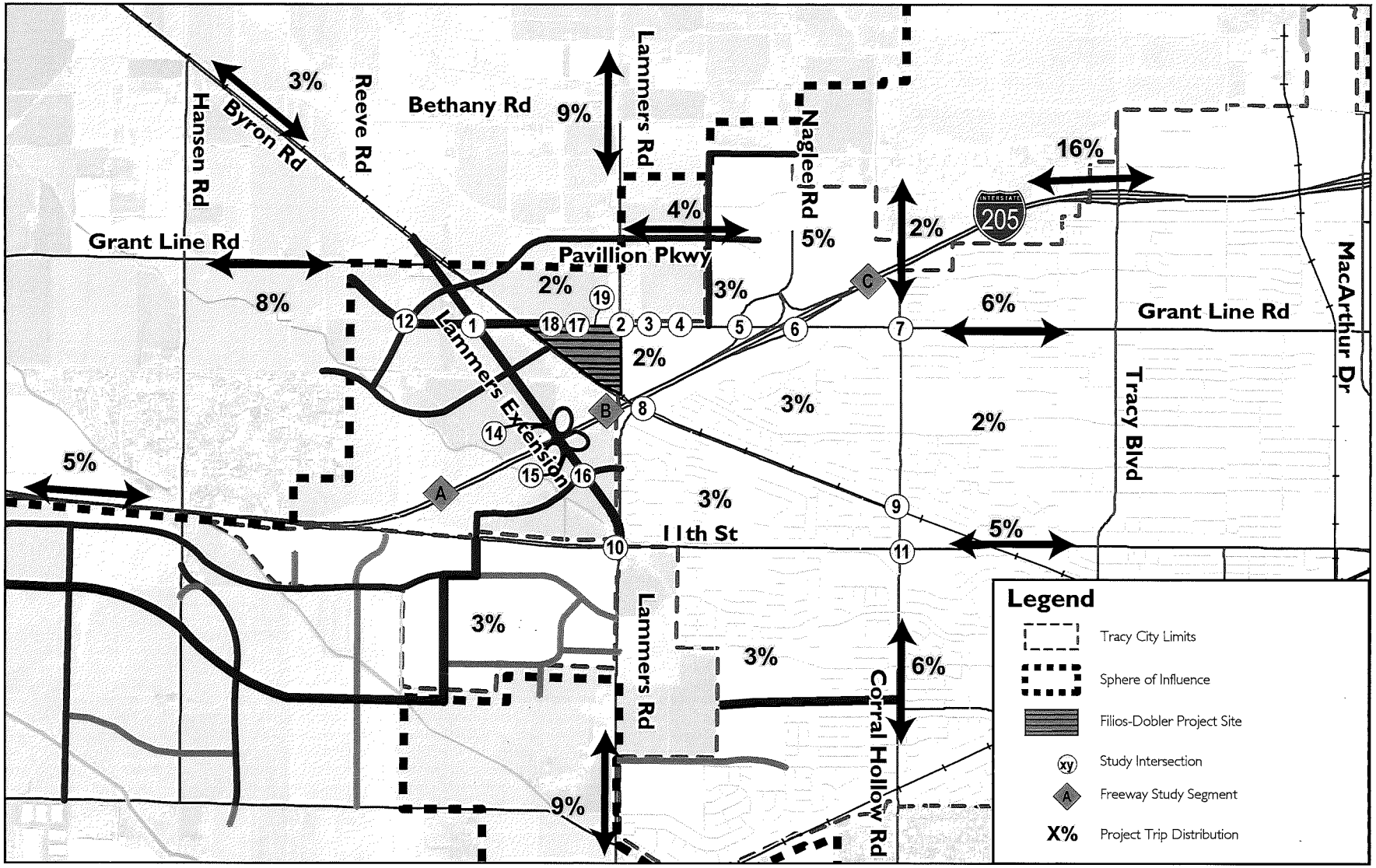
Existing & Near Term Project Trip Distribution

Figure 4.14-13



Data Source: RBF Consulting / City of Tracy General Plan EIR, July 2010

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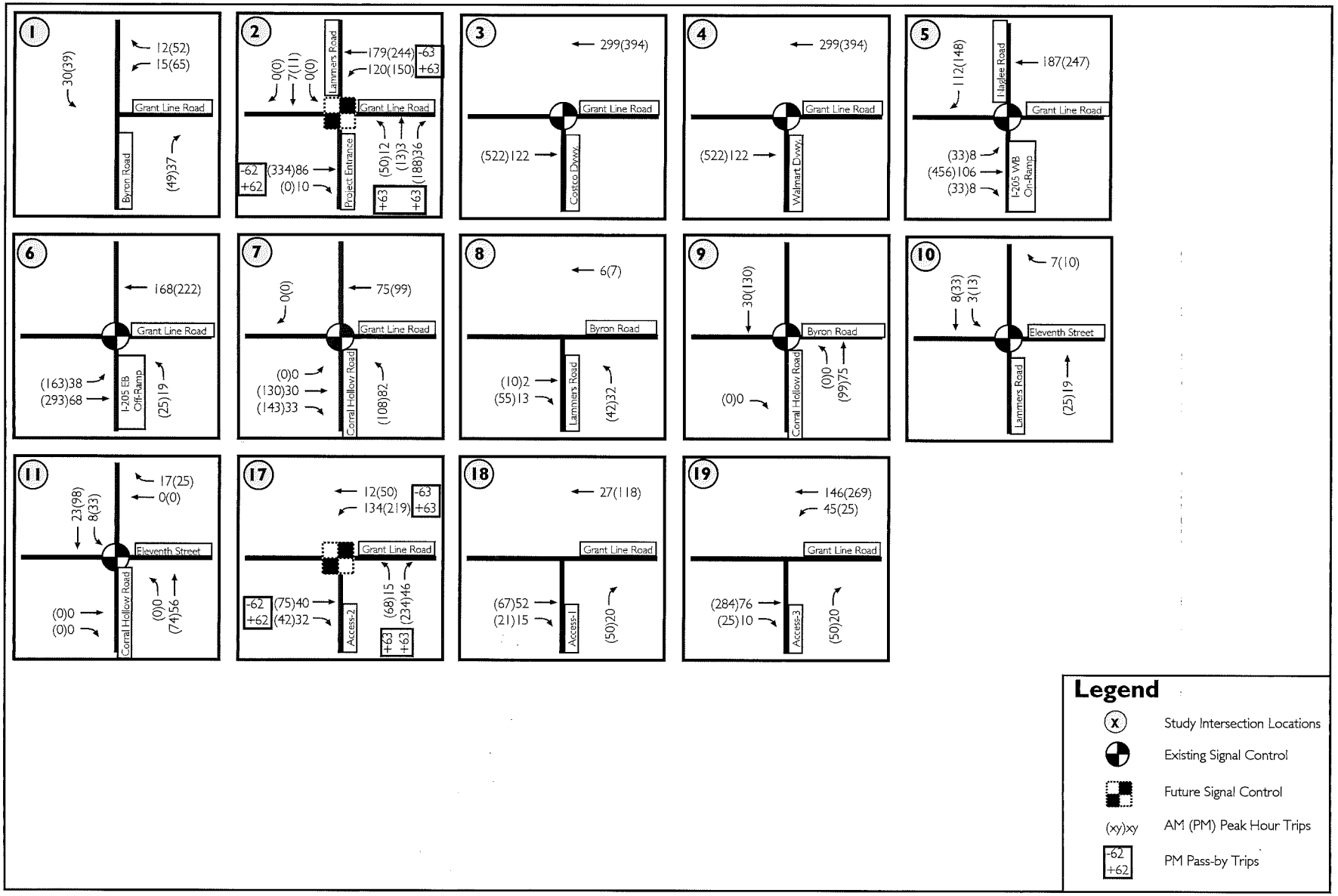
Cumulative Project Trip Distribution

Figure 4.14-14



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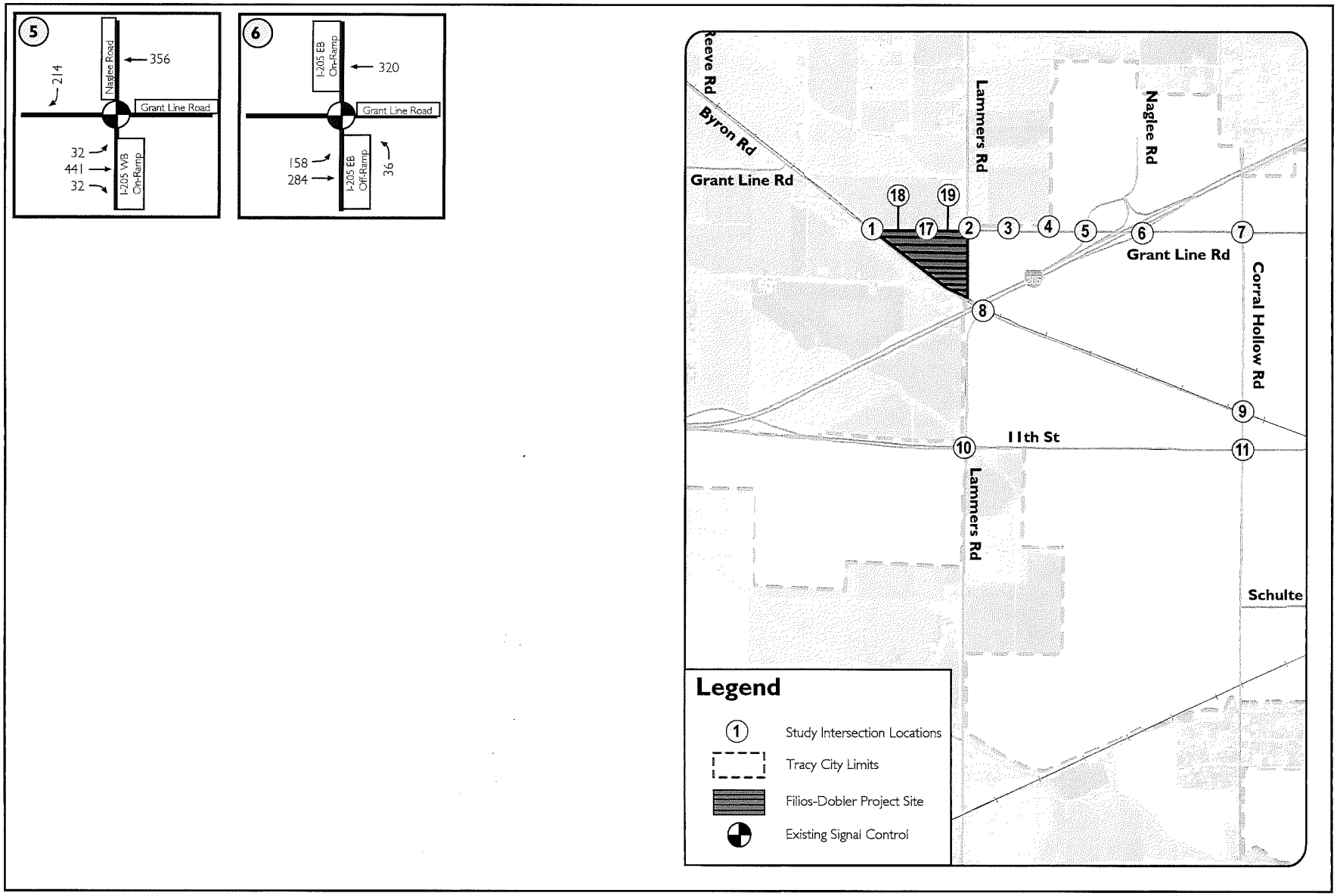
Existing & Near Term Project Trip Assignment (Weekday)

Figure 4.14-15



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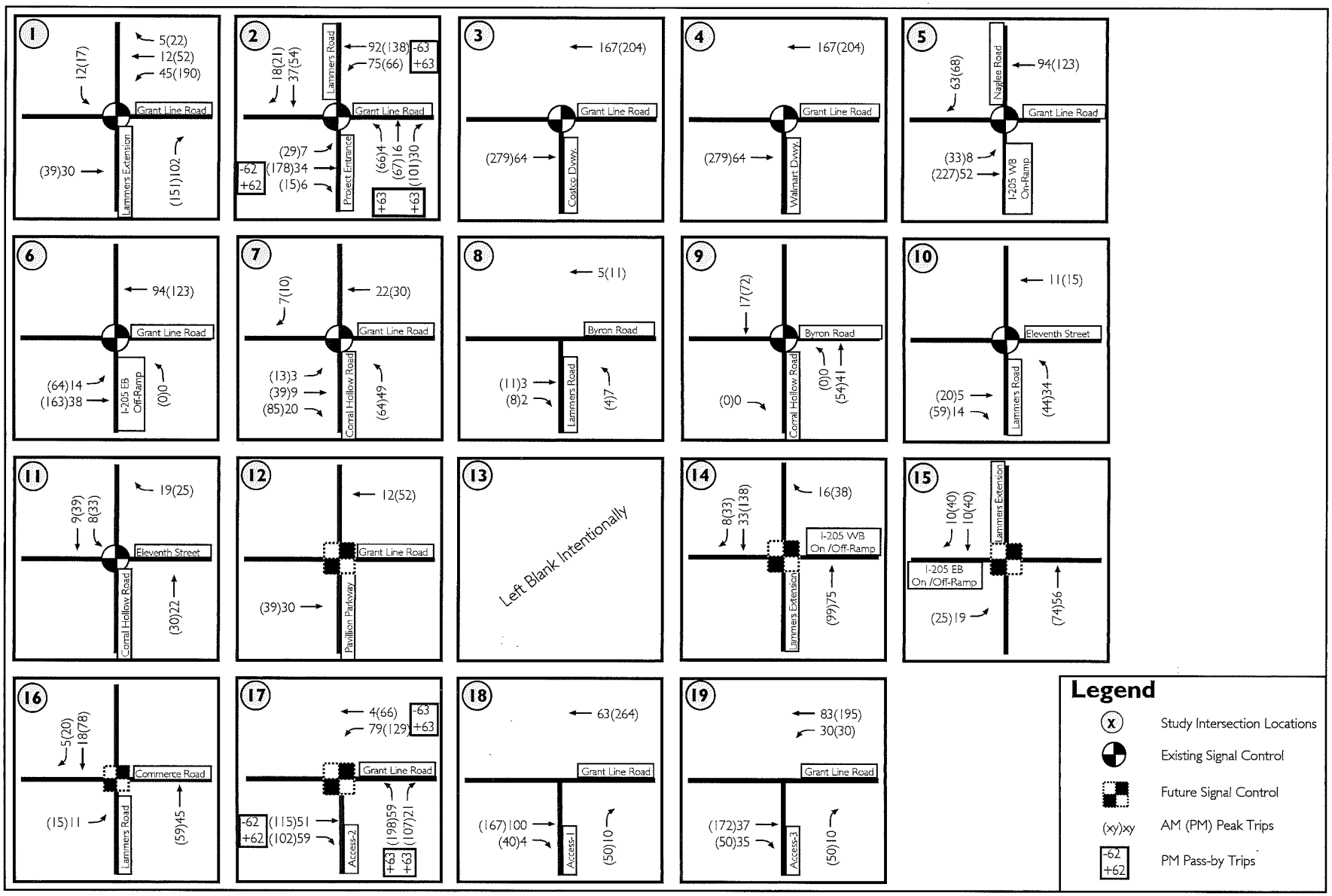
Existing & Near Term Project Trip Assignment (Saturday Mid-Day)

Figure 4.14-16



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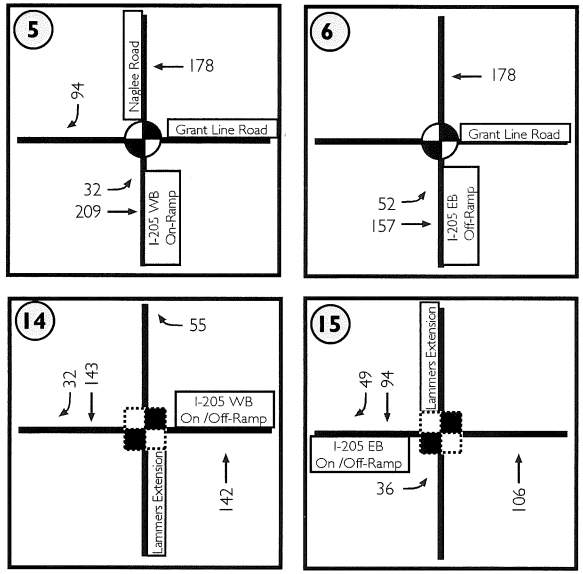
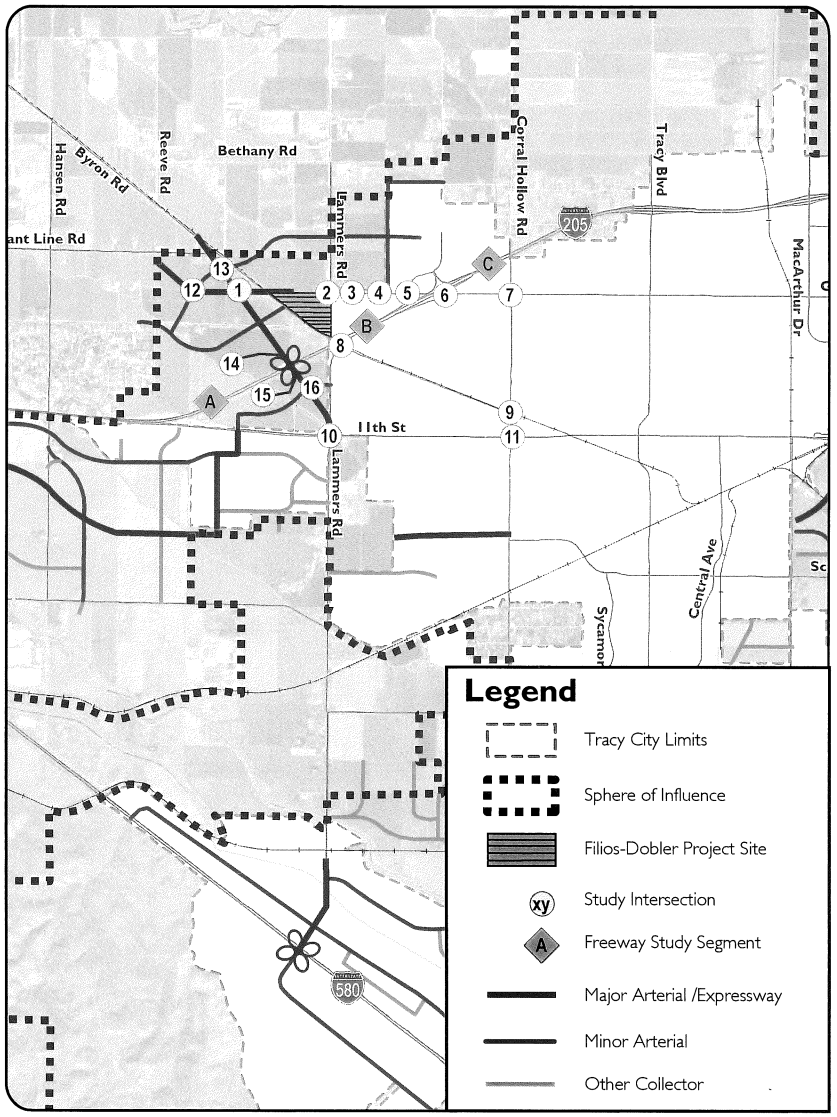
Cumulative Project Trip Assignment (Weekday)

Figure 4.14-17





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Cumulative Project Trip Assignment (Saturday Mid-Day)

Figure 4.14-18

4.14.7 EXISTING PLUS PROJECT CONDITIONS

This section evaluates the addition of Project trips to Existing Conditions Without Project. The roadway system in this scenario would be the same as Existing Conditions Without Project except the proposed Project improvements. No other pending projects are assumed to be in place under this scenario. This scenario serves to isolate Project-related traffic impacts.

EXISTING PLUS PROJECT CONDITIONS TRAFFIC VOLUMES

Project trips were added to Existing Conditions Without Project to obtain Existing Conditions With Project traffic volumes. Figure 4.14-19 (Existing Plus Project Weekday Peak Hour Traffic Volumes) and Figure 4.14-20 (Existing Plus Project Saturday Mid-Day Traffic Volumes) show Existing Plus Project Conditions for weekday AM and PM peak hour volumes and Saturday Mid-Day peak hour volumes, respectively.

EXISTING PLUS PROJECT CONDITIONS INTERSECTION TRAFFIC OPERATIONS

Project accesses will be located along Grant Line Road via two full access intersections and two partial access driveways. Of the two full access intersections, one is an existing intersection (#2) and the other is a proposed intersection. Of the two partial access driveways, one will be restricted to right-in and right-out only, and the other will restrict left-out movement. Table 4.14-13 (Existing Plus Project Conditions Peak Hour Intersection Level of Service) summarizes Existing Conditions With and Without Project for weekday AM and PM peak hour LOS of the study intersections. The results were measured against the respective jurisdiction standards and indicate that the addition of the Project trips would result in a significant impact to three of the 11 study intersections, and a full access project driveway. Detailed LOS analysis sheets are included in Appendix G.

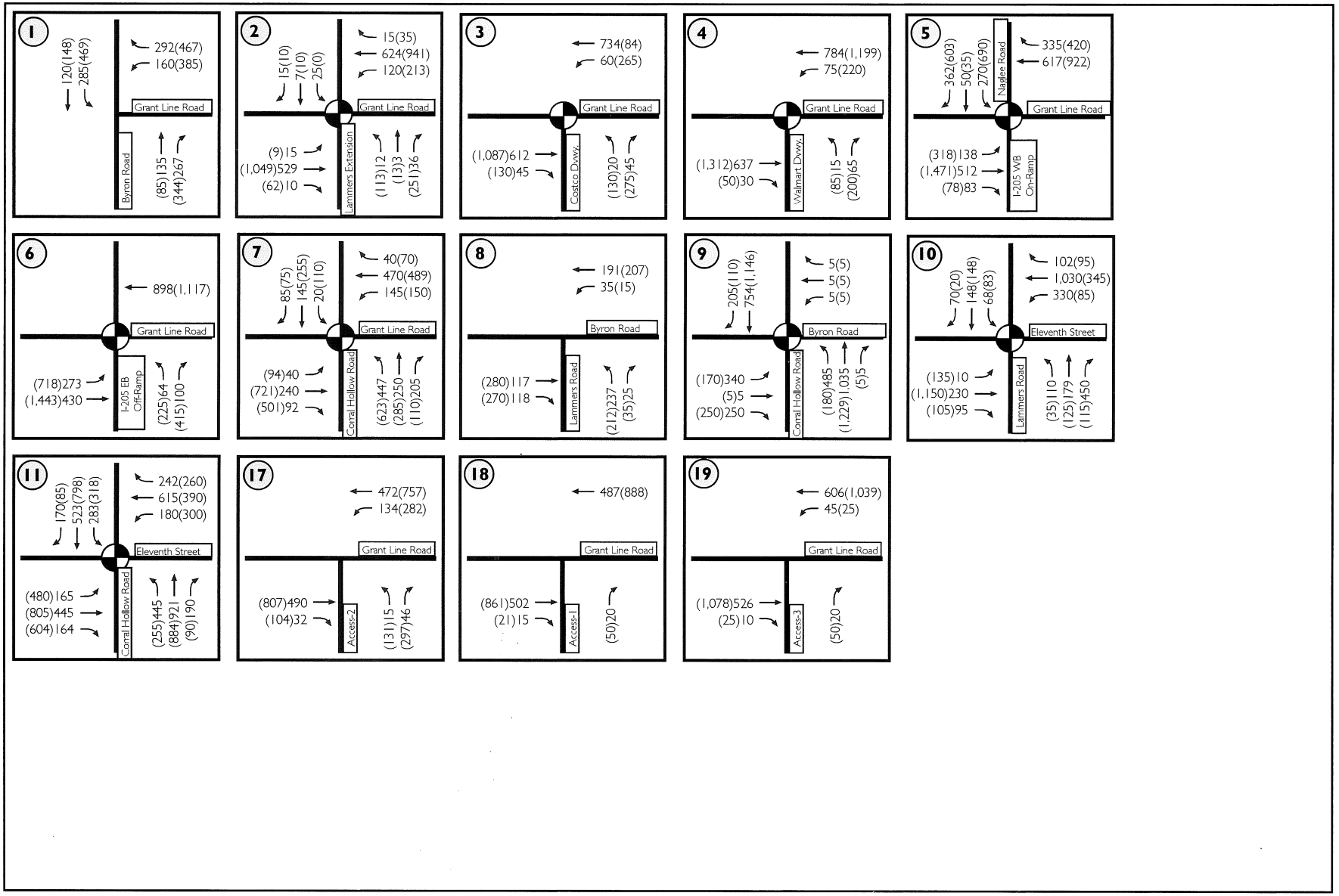
Table 4.14-13
Existing Plus Project Conditions Peak Hour Intersection Level of Service

Intersection	Control[1]	Peak Hour	Existing		Existing + Project	
			Delay in Sec[2]	LOS	Delay in Sec[2]	LOS
1. Byron Road/Grant Line Road (County)	Signal	AM	15.2	B	16.6	B
		PM	20.3	C	26.0	C
2. Lammers Road/Grant Line Road (County/City-With Project Annexation)	SSS	AM	0.9 (17.1)	A(C)	8.8 (**>50**)	A(**F**)
		PM	1.1 (**>50**)	B(**F**)	**>50 (>50)**	**F(F)**
3. Costco Driveway/Grant Line Road (City)	Signal	AM	18.1	B	18.3	B
		PM	17.4	B	21.4	C
4. Wal-Mart Driveway/Grant Line Road (City)	Signal	AM	23.0	C	21.7	C
		PM	18.3	B	23.3	C
5. Naglee Road/I-205 WB On-Ramp/ Grant Line Road (City/Caltrans)	Signal	AM	14.0	B	16.5	B
		PM	19.5	C	21.2	C
		SAT	22.7	C	34.8	C
6. I-205 EB Off-Ramp/Grant Line Road (City/Caltrans)	Signal	AM	14.3	B	15.8	B
		PM	38.6	D	**78.9**	**E**
		SAT	24.5	C	**65.9**	**E**
7. Corral Hollow Road/Grant Line Road	Signal	AM	17.2	B	18.3	B

Intersection	Control[1]	Peak Hour	Existing		Existing + Project	
			Delay in Sec[2]	LOS	Delay in Sec[2]	LOS
(City)		PM	22.7	C	31.8	C
8. Lammers Road/Byron Road (City)	AWS	AM	11.3	B	12.2	B
		PM	15.1	C	20.7	C
9. Corral Hollow Road/Byron Road (City)	Signal	AM	25.6	C	26.3	C
		PM	15.9	B	18.1	B
10. Lammers Road/Eleventh Street (City)	Signal	AM	25.8	C	26.2	C
		PM	15.5	B	17.7	B
11. Corral Hollow Road/Eleventh Street (City)	Signal	AM	27.6	C	28.9	C
		PM	28.0	C	30.0	C
17. Access-2/Grant Line Road	SSS	AM	-	-	2.8 (19.6)	A(C)
		PM	-	-	**>50 (>50)**	**F(F)**
18. Access-1/Grant Line Road	SSS	AM	-	-	0.2 (12.1)	A(B)
		PM	-	-	0.5 (18.9)	A(C)
19. Access-3/Grant Line Road	SSS	AM	-	-	0.9 (12.4)	A(B)
		PM	-	-	1.5 (25.8)	A(D)

Note:
1. Signal = signalized intersection, SSS = side street stop intersection (Existing control is SSS and a Signal with Improvement)
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach)
- Bold indicates deficient LOS per jurisdiction's criteria

Source: RBF Consulting 2011.



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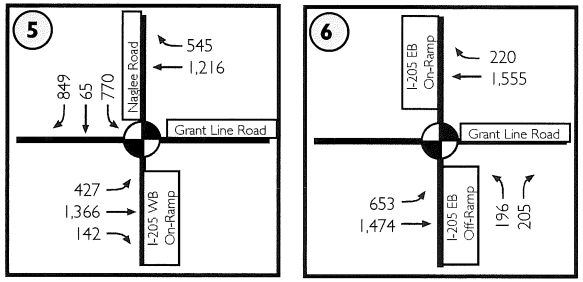
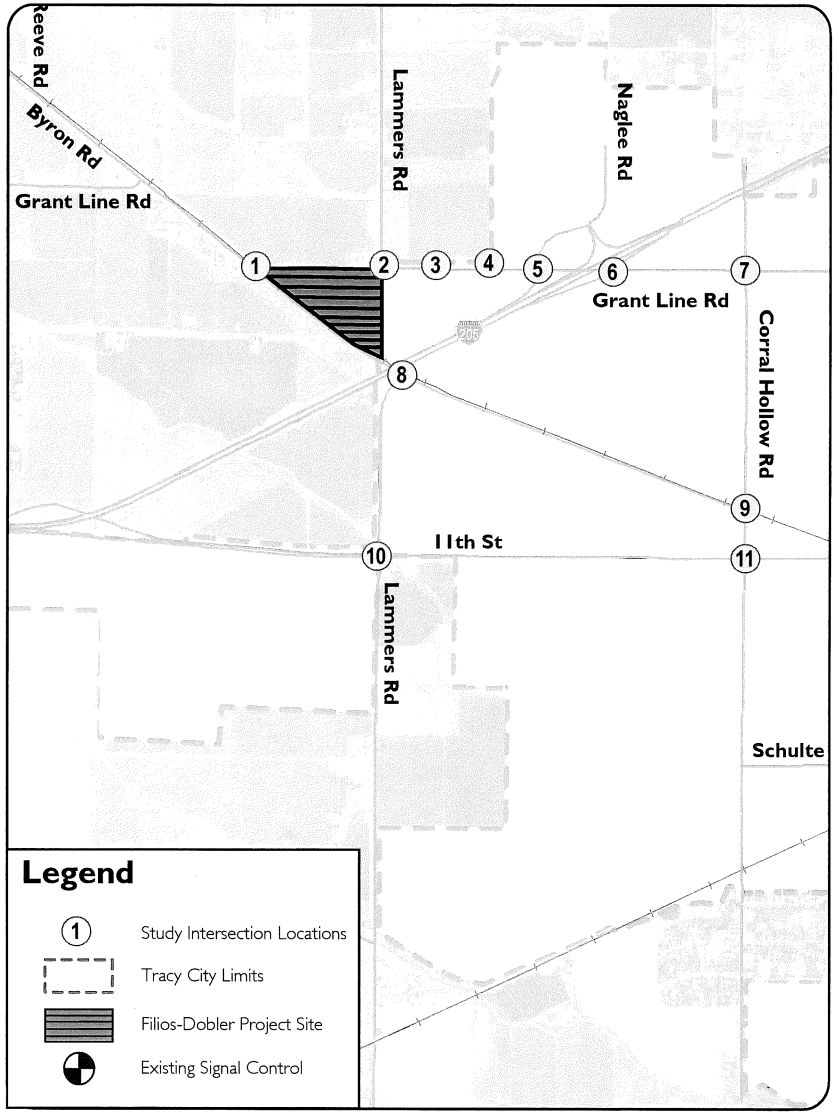
Existing+Project Weekday AM(PM) Peak Hour Traffic Volumes

Figure 4.14-19





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Existing+Project Saturday Mid-Day Traffic Volumes

Figure 4.14-20

EXISTING PLUS PROJECT CONDITIONS FREEWAY SEGMENT CAPACITY ANALYSIS

Table 4.14-14 (Existing Plus Project Conditions Freeway Segment Level of Service) summarizes the Existing Conditions With Project freeway densities (vehicles /lane /mile) and LOS results during the weekday AM and PM peak hours along the freeway study segments. The LOS results indicate that all freeway segments would continue to operate acceptably similar to Existing Conditions Without Project. Even though the Project generates more trips in the Saturday peak hour than on the weekdays, Saturday peak hour volumes along the freeway segment would be lower due to non-commute traffic, and the difference in Project trips would not be great enough to cause an impact not identified for a weekday peak hour.

Table 4.14-14
Existing Plus Project Conditions Freeway Segment Level of Service

I-205 Freeway Segment Between	Peak Hour	Direction	Existing			Project Trips	Existing + Project		
			Volume	Density (pc/mil/ln)	LOS		Volume	Density (pc/mil/ln)	LOS
A. Mountain House Parkway and Eleventh Street	AM	WB	5353	27	D	8	5361	27	D
		EB	2058	11	B	19	2077	11	B
	PM	WB	2395	12	B	33	2428	12	B
		EB	4954	25	C	25	4979	26	C
B. Eleventh Street and Grant Line Road	AM	WB	3500	18	B	8	3508	18	B
		EB	1694	9	A	19	1713	9	A
	PM	WB	1967	10	A	33	2000	10	A
		EB	3552	18	B	25	3577	18	B
C. Grant Line Road and Tracy Boulevard	AM	WB	3497	18	B	94	3591	18	B
		EB	1845	9	A	38	1883	10	A
	PM	WB	1989	10	A	123	2112	11	A
		EB	3413	18	B	163	3576	18	B

Source: RBF Consulting 2011.

POTENTIAL IMPACTS AND MITIGATION MEASURES – EXISTING PLUS PROJECT

4.14-1 ***THE PROPOSED PROJECT WOULD INCREASE TRAFFIC AT STUDY AREA INTERSECTIONS AND ROADWAY SEGMENTS. ELEVEN STUDY INTERSECTIONS AND ALL STUDY FREEWAY MAINLINE SEGMENTS WOULD CONTINUE TO OPERATE AT ACCEPTABLE LEVELS OF SERVICE IN ACCORDANCE WITH THE CITY OF TRACY, SAN JOAQUIN COUNTY AND CALTRANS SIGNIFICANCE CRITERIA DURING THE WEEKDAY AM AND PM PEAK HOUR AND THE SATURDAY MID-DAY PEAK HOUR AS INDICATED.***

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis:

The LOS for the following intersections would remain acceptable in accordance with City significance criteria and Caltrans standards as shown in Table 4.14-13.

- Intersection #1 Byron Road/Grant Line Road

- Intersection #3 Costco Driveway/Grant Line Road
- Intersection #4 Wal-Mart Driveway/Grant Line Road
- Intersection #5 Naglee Road and I-205 WB On-Ramp/Grant Line Road
- Intersection #7 Corral Hollow Road/Grant Line Road
- Intersection #8 Lammers Road (S)/Byron Road
- Intersection #9 Corral Hollow Road/Byron Road
- Intersection #10 Lammers Road/Eleventh Street
- Intersection #11 Corral Hollow Road/Eleventh Street
- Intersection #18 Access-1/Grant Line Road
- Intersection #19 Access-3/Grant Line Road

As the proposed Project would not degrade the LOS below D for City intersections and LOS C for Caltrans intersections, the proposed Project would have a less than significant impact at these intersections.

The LOS for the following freeway segments would remain acceptable in accordance with Caltrans standards (LOS D or better) as shown in Table 4.14-14.

- I-205 between the Mountain House Parkway Interchange and Eleventh Street Interchange
- I-205 between the Eleventh Street Interchange and Grant Line Road Interchange
- I-205 between the Grant Line Road Interchange and the Tracy Boulevard Interchange

As the proposed project would not degrade the LOS below LOS D for Caltrans freeway facilities, the proposed Project would have a less than significant impact on the freeway.

Mitigation Measures: No mitigation is required.

Level of Significance After Mitigation: Not applicable.

4.14-2 ***THE PROPOSED PROJECT WOULD ADD TRAFFIC TO THE UNSIGNALIZED COUNTY (CITY OF TRACY WITH PROJECT ANNEXATION) INTERSECTION OF LAMMERS ROAD AND GRANT LINE ROAD (INTERSECTION #2). THIS INTERSECTION IS PROJECTED TO OPERATE AT AN OVERALL LOS F (UNACCEPTABLE) IN THE AM AND PM PEAK HOUR.***

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

The intersection of Lammers Road and Grant Line Road (Intersection #2) is currently a County intersection that is operating at LOS B under Existing Conditions during both the AM and PM peak periods. Given that the proposed Project would annex this intersection to the City, the City LOS standards were used to evaluate the intersection. The worst approach would operate at an unacceptable LOS F during both the AM and PM peak hour with Project traffic. The peak hour traffic signal warrant is also satisfied. Detailed signal warrant analysis worksheets are included in Appendix G. Implementation of

Mitigation Measure 4.14-2 requiring installation of a traffic signal would reduce this impact to less than significant.

Mitigation Measure:

4.14-2 A traffic signal shall be installed at the intersection of Lammers Road and Grant Line Road (Intersection #2). In conjunction with the proposed traffic signal installation, the following geometric improvements shall be constructed:

- Westbound approach – Reconstruct the approach to include one through lane and one through/right turn lane and a separate left-turn lane.
- Eastbound approach – Reconstruct the approach to include one through lane and one shared through/right-turn lane. Provide an acceleration lane east of Lammers Road.
- Northbound approach – Reconstruct the approach to include a shared left-turn/through lane and a right-turn lane. The existing truck exit from Costco would be reconstructed to be part of the intersection and the current truck movements incorporated in the northbound right-turn movement.

The Project applicant shall be responsible for implementation of the above improvements prior to Project occupancy or at a time determined by the City Engineer based on the City's ability to meet City vehicle and pedestrian standards. If all or a portion of this traffic signal improvement is otherwise scheduled by the City to be financed as a Program improvement, the Project applicant may be eligible for reimbursements from future benefiting development in excess of the Project's fair share costs.

Level of Significance After Mitigation: Less Than Significant Impact.

4.14-3 ***THE PROPOSED PROJECT WOULD ADD TRAFFIC TO THE CALTRANS INTERSECTION OF I-205 EASTBOUND RAMPS AND GRANT LINE ROAD (INTERSECTION #6). THIS INTERSECTION IS PROJECTED TO OPERATE AT AN LOS E (UNACCEPTABLE) DURING THE PM AND SATURDAY PEAK HOURS.***

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

The intersection of I-205 Eastbound Off-ramp and Grant Line Road (Intersection #6) is a Caltrans intersection that is operating at an acceptable level of service (LOS D or better) under Existing Conditions. The proposed Project would degrade operations to an unacceptable LOS E during the PM peak hour and Saturday peak hour. Implementation of Mitigation Measure 4.14-3 would reduce this impact to less than significant.

Mitigation Measure:

4.14-3 A second eastbound left-turn lane and widening of the eastbound on-ramp to two lanes shall be constructed at the intersection of I-205 Eastbound Off-ramp and Grant Line Road (Intersection #6). The proposed improvement may require a design exemption from Caltrans. This improvement is included in the City's TIF program (Project 72PP-084). The Project applicant shall make a fair share contribution toward implementation of this improvement through the payment of City of Tracy traffic impact fees.

Level of Significance After Mitigation: Less Than Significant Impact.

4.14-4 THE PROPOSED PROJECT WOULD ADD A DRIVEWAY AND TRAFFIC AT PROJECT ACCESS ROAD-2 AND GRANT LINE ROAD (INTERSECTION #17). THIS INTERSECTION IS PROJECTED TO OPERATE AT LOS F (UNACCEPTABLE) IN THE PM PEAK HOUR.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

With the addition of Project traffic, the intersection of Access Road-2 and Grant Line Road (Intersection #17) would operate at an unacceptable LOS F during the PM peak hour. Implementation of Mitigation Measure 4.14-4 would reduce this impact to less than significant.

Mitigation Measure:

4.14-4 A traffic signal shall be installed at the intersection of Access Road-2 and Grant Line Road (Intersection #17). In conjunction with the traffic signal installation, the following geometric improvements shall be constructed:

- Westbound approach – Provide two through lanes and a left-turn lane.
- Eastbound approach – Provide one through lane and one shared through/right-turn lane.
- Northbound approach – Provide a separate left-turn and right-turn lane.

The four lane improvement along Grant Line Road would continue along the Project frontage to accommodate traffic flow demand. SimTraffic analysis indicates that four lanes are required to avoid queue overflow between the Project driveways. The Project applicant shall be responsible for implementation of the above improvements prior to project occupancy or at a time determined by the City Engineer based on the City's ability to meet vehicle and pedestrian standards.

Level of Significance After Mitigation: Less Than Significant Impact.

4.14-5 THE PROPOSED PROJECT WOULD ADD A DRIVEWAY AND TRAFFIC AT PROJECT ACCESS ROAD-3 AND GRANT LINE ROAD (INTERSECTION #19) THAT COULD RESULT IN UNSAFE CONDITIONS.

Level of Significance Before Mitigation: Potentially Significant Impact

Impact Analysis:

The addition of Project traffic at the intersection of Access Road-3 and Grant Line Road (Intersection #19) could result in unsafe driving conditions. Without a dedicated left turn lane for westbound vehicles turning into the site, accidents may result between through traffic and left turn traffic. Implementation of Mitigation Measure 4.14-5 requiring a westbound left turn lane would reduce this impact to less than significant.

Mitigation Measure:

4.14-5 A westbound left-turn lane for inbound Project traffic shall be provided at the intersection of Access Road-3 and Grant Line Road (Intersection #19). The Project applicant shall be responsible for implementation of the left-turn lane prior to Project occupancy.

Level of Significance After Mitigation: Less Than Significant Impact.

EXISTING PLUS PROJECT CONDITIONS INTERSECTION TRAFFIC OPERATIONS (WITH MITIGATION)

Table 4.14-15 (Existing Plus Project Conditions Peak Hour Intersection Level of Service with Mitigation) shows the LOS results with mitigation. Figure 4.14-21 (Existing Plus Project Mitigated Intersection Lane Configuration) shows the intersection lane configuration with proposed mitigation for Existing Plus Project. The LOS results measured against the respective jurisdiction standards indicate that the study intersections traffic operations would operate at acceptable LOS. Detailed LOS analysis sheets are included in Appendix G.

Table 4.14-15
Existing Plus Project Conditions Peak Hour Intersection Level of Service with Mitigation

Intersection	Control[1]	Peak Hour	Existing + Project		Existing + Project+ Mitigation	
			Delay in Sec[2]	LOS	Delay in Sec[2]	LOS
2. Lammers Road/Grant Line Road (County/City-With Project Annexation)	SSS / Signal	AM	2.7 (**35.3**)	A(**E**)	18.0	B
		PM	**>50 (>50)**	**F(F)**	17.4	B
6. I-205 EB Off-Ramp/Grant Line Road (City/Caltrans)	Signal	AM	15.8	B	12.5	B
		PM	**78.9**	**E**	30.1	C
		SAT	**65.9**	**E**	35.2	D
17. Access-2/Grant Line Road	SSS / Signal	AM	1.8 (15.4)	A(C)	17.5	B
		PM	**>50 (>50)**	**F(F)**	26.3	C

Note:
1. Signal = signalized intersection, SSS = side street stop intersection (Existing control is SSS and a Signal with Improvement)
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach)
- Bold indicates deficient LOS per jurisdiction's criteria

Source: RBF Consulting 2011.

4.14.8 NEAR TERM PLUS PROJECT CONDITIONS

This section evaluates the addition of Project trips to the Near Term Without Project. The roadway system in this scenario would be the same as Near Term Without Project plus the improvements/mitigation identified in the Existing Conditions With Project. No other pending projects are assumed to be in place under this scenario.

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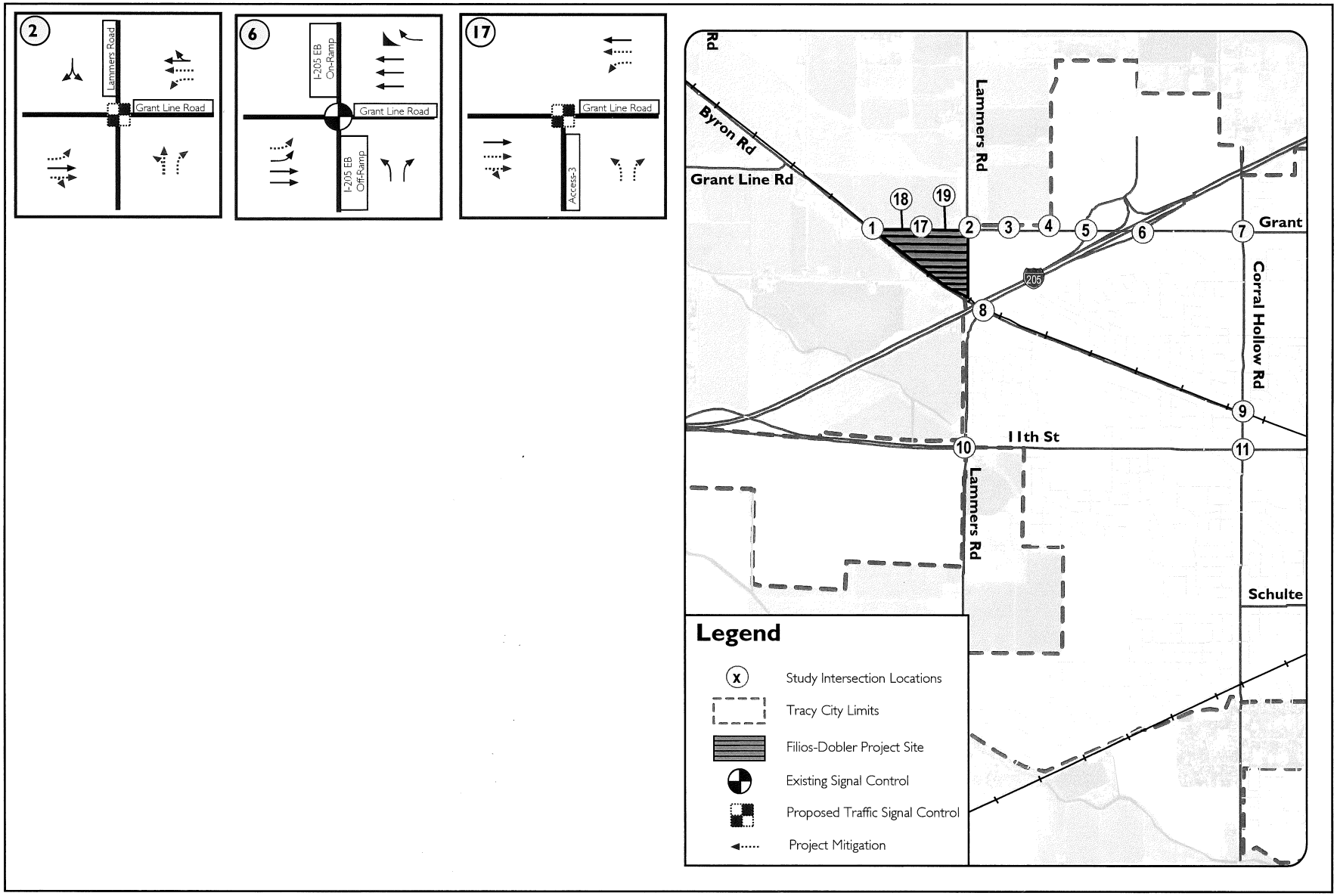

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Existing+Project Mitigated Intersection Lane Configuration

Figure 4.14-21

NEAR TERM PLUS PROJECT CONDTIONS TRAFFIC VOLUMES

Project trips were added to Near Term Conditions Without Project to obtain Near Term Conditions With Project traffic volumes. Figure 4.14-22 (Near Term Plus Project Peak Hour Traffic Volumes) and Figure 4.14-23 (Near Term Plus Project Saturday Mid-Day Traffic Volumes) show Near Term Conditions With Project for weekday AM and PM peak hour volumes and Saturday mid-day peak hour volumes, respectively.

NEAR TERM PLUS PROJECT CONDITIONS INTERSECTION TRAFFIC OPERATIONS

Table 4.14-16 (Near Term Plus Project Conditions Peak Hour Intersection Level of Service) summarizes Near Term Conditions With and Without Project for weekday AM and PM peak hour LOS of the study intersections. The results were measured against the respective jurisdiction standards and indicate that the addition of the Project trips would result in a significant impact to three study intersections, and a full access project driveway. All of these were identified for mitigation in the Existing Plus Project Conditions. In addition, it should be noted that even though the intersection of Corral Hollow Road /Byron Road would operate at deficient LOS D, the Project would not significantly impact the intersection (less than four seconds delay added). Detailed LOS analysis sheets are attached to this report in Appendix G.

Table 4.14-16
Near Term Plus Project Conditions Peak Hour Intersection Level of Service

Intersection	Control[1]	Peak Hour	Near Term		Near Term + Project	
			Delay in Sec[2]	LOS	Delay in Sec[2]	LOS
1. Byron Road/Grant Line Road (County)	Signal	AM	17.6	B	19.6	B
		PM	29.9	C	44.2	D
2. Lammers Road/Grant Line Road (County/City-With Project Annexation)	SSS	AM	1.1 (21.1)	A(C)	18.9 (**>50**)	B(**F**)
		PM	2.2 (**>50**)	C(**F**)	**>50(>50)**	**F(F)**
3. Costco Driveway/Grant Line Road (City)	Signal	AM	18.7	B	16.7	B
		PM	17.2	B	21.7	C
4. Wal-Mart Driveway/ Grant Line Road (City)	Signal	AM	23.4	C	21.0	C
		PM	18.1	B	22.7	C
5. Naglee Road/I-205 WB On-Ramp / Grant Line Road (City / Caltrans)	Signal	AM	15.5	B	19.0	B
		PM	21.1	C	24.8	C
		SAT	27.1	C	28.0	C
6. I-205 EB Off-Ramp/ Grant Line Road (City/ Caltrans)	Signal	AM	15.5	B	16.9	B
		PM	**66.0**	**E**	**>80**	**F**
		SAT	51.9	D	**>80**	**F**
7. Corral Hollow Road/ Grant Line Road (City)	Signal	AM	18.7	B	20.7	C
		PM	28.6	C	30.8	C
8. Lammers Road/Byron Road (City)	Signal	AM	11.6	B	13.5	B
		PM	14.5	B	16.0	B
9. Corral Hollow Road/ Byron Road (City)	Signal	AM	41.0	D	44.0	D
		PM	20.6	C	22.9	C
10. Lammers Road/	Signal	AM	24.7	C	25.0	C

Intersection	Control[1]	Peak Hour	Near Term		Near Term + Project	
			Delay in Sec[2]	LOS	Delay in Sec[2]	LOS
Eleventh Street (City)		PM	18.8	B	18.9	B
11. Corral Hollow Road/ Eleventh Street (City)	Signal	AM	32.7	C	33.3	C
		PM	37.0	D	42.3	D
17. Access-2/Grant Line Road	SSS	AM	-	-	3.0(23.1)	A(D)
		PM	-	-	**>50(>50)**	**F(F)**
18. Access-1Grant Line Road	SSS	AM	-	-	0.2 (12.9)	A(B)
		PM	-	-	0.5 (22.2)	A(C)
19. Access-3/Grant Line Road	SSS	AM	-	-	0.9 (13.2)	A(B)
		PM	-	-	5.2 (**>50**)	A(**F**)

Note:
1. Signal = signalized intersection, SSS = side street stop intersection (Existing control is SSS and a Signal with Improvement)
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach)
- Bold indicates deficient LOS per jurisdiction's criteria

Source: RBF Consulting 2011.

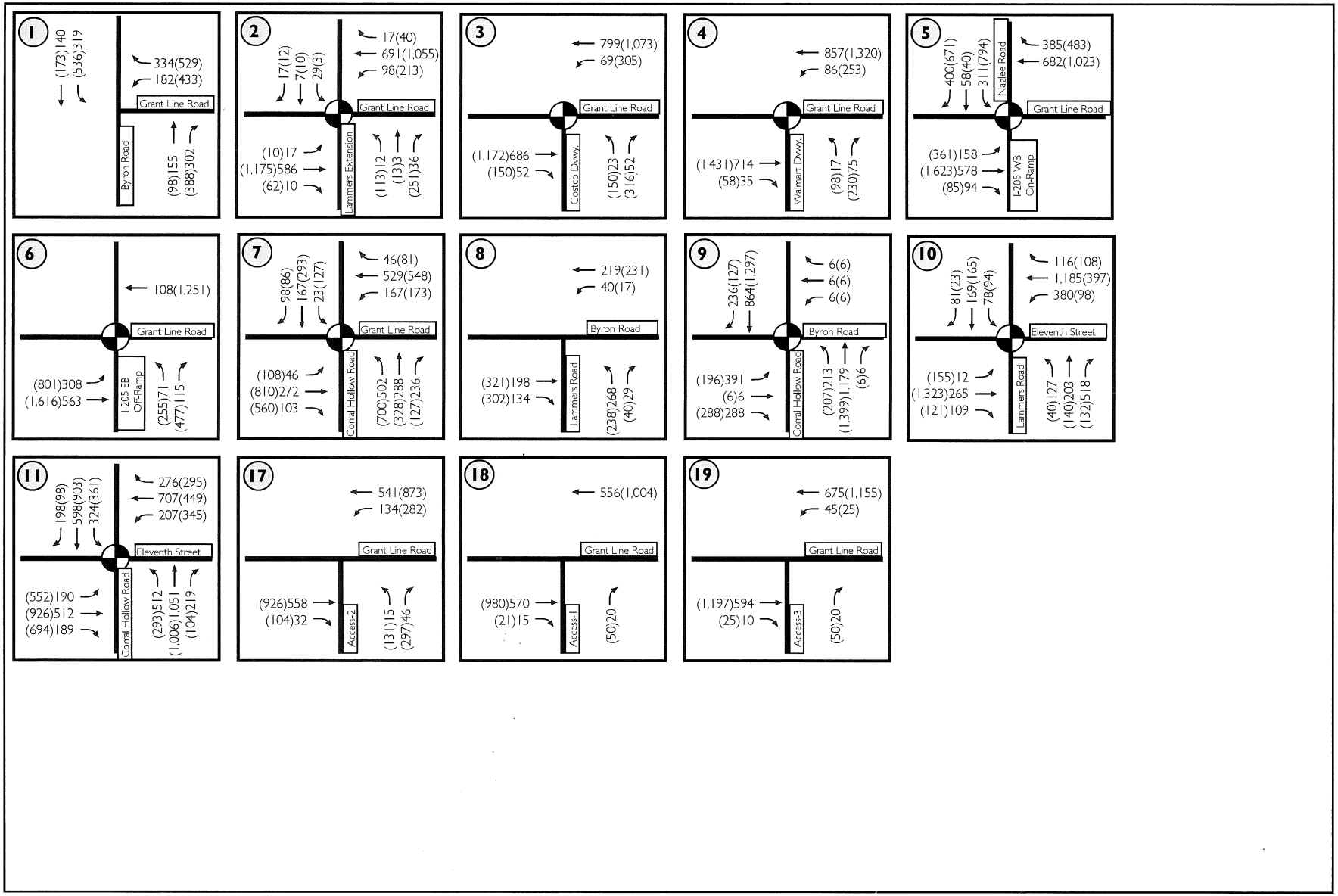
NEAR TERM PLUS PROJECT CONDITIONS FREEWAY SEGMENT CAPACITY ANALYSIS

Table 4.14-17 (Near Term Plus Project Conditions Freeway Segment Level of Service) summarizes the Near Term Conditions With Project freeway densities (vehicles /lane /mile) and the LOS results during the weekday AM and PM peak hours along the freeway study segments. All freeway segments would continue to operate acceptably similar to the Near Term Conditions Without Project.

Table 4.14-17
Near Term Plus Project Conditions Freeway Segment Level of Service

I-205 Freeway Segment Between	Peak Hour	Direction	Near Term			Project Trips	Near Term + Project		
			Volume	Density (pc/mil/ln)	LOS		Volume	Density (pc/mil/ln)	LOS
A. Mountain House Parkway and Eleventh Street	AM	WB	6156	32	D	8	6164	32	D
		EB	2367	12	B	19	2386	12	B
	PM	WB	2754	14	B	33	2787	14	B
		EB	5697	29	D	25	5722	29	D
B. Eleventh Street and Grant Line Road	AM	WB	4025	21	C	8	4033	21	C
		EB	1948	10	A	19	1967	10	A
	PM	WB	2262	12	B	33	2295	12	B
		EB	4085	21	C	25	4110	21	C
C. Grant Line Road and Tracy Boulevard	AM	WB	4022	21	C	94	4116	21	C
		EB	2122	11	A	38	2160	11	A
	PM	WB	2287	12	B	123	2410	12	B
		EB	3925	20	C	163	4088	21	C

Source: RBF Consulting 2011.



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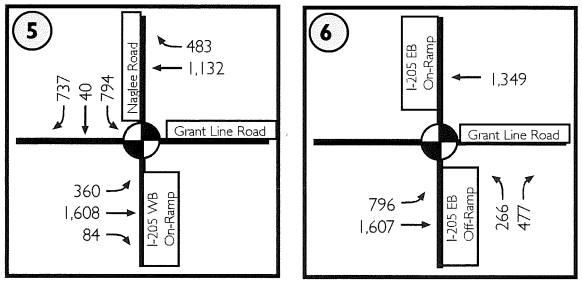
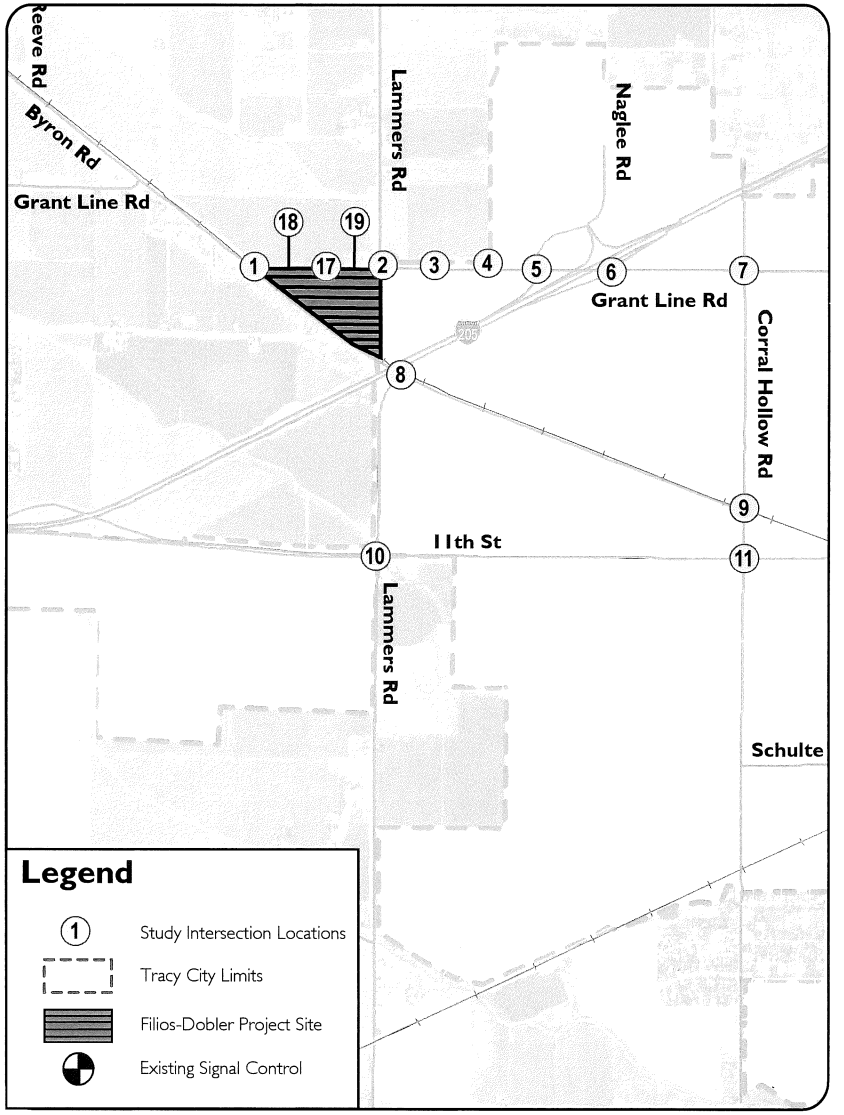
Near Term+Project Weekday AM(PM) Peak Hour Traffic Volumes

Figure 4.14-22





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Near Term+Project Saturday Mid-Day Traffic Volumes

Figure 4.14-23

POTENTIAL IMPACTS AND MITIGATION MEASURES – NEAR TERM PLUS PROJECT

4.14-6 THE PROPOSED PROJECT, ALONG WITH NEAR TERM GROWTH, WOULD RESULT IN UNACCEPTABLE TRAFFIC OPERATIONS AT FOUR INTERSECTIONS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

The following intersections would operate at a deficient LOS according under Near Term Plus Project Conditions:

- Intersection #2: Lammers Road/Grant Line Road
- Intersection #6: I-205 EB Off-Ramp/Grant Line Road
- Intersection #17: Access-2/Grant Line Road
- Intersection #19: Access-3/Grant Line Road

With the exception of the intersections of Corral Hollow Road/Byron Road (#9) and Corral Hollow Road/Eleventh Street (#11), the above locations were also projected to operate at an unacceptable LOS under Existing Plus Project Conditions. Implementation of Mitigation Measures 4.14-2 through 4.14-5 would reduce impacts at four of the intersections to less than significant. Impacts at the other two deficient intersections (Corral Hollow Road/Byron Road and Corral Hollow Road/Eleventh Street) are discussed below.

Mitigation Measure: Implement Mitigation Measures 4.14-2 through 4.14-5.

Level of Significance After Mitigation: Less Than Significant Impact.

4.14-7 THE PROPOSED PROJECT WOULD ADD TRAFFIC TO I-205 FREEWAY SEGMENTS UNDER NEAR-TERM CONDITIONS.

Level of Significance Before Mitigation: Less Than Significant Impact

Impact Analysis:

The proposed Project would add traffic to freeway segments on I-205 from Mountain House Parkway to Tracy Boulevard. These freeway segments are still projected to operate at an acceptable level, LOS D or better. The addition of Project traffic is not anticipated to degrade the freeway segment to an unacceptable level.

Mitigation Measure: No mitigation is required.

Level of Significance: Not applicable.

NEAR TERM PLUS PROJECT CONDITIONS INTERSECTION TRAFFIC OPERATIONS (WITH MITIGATION)

Table 4.14-18 (Near Term Plus Project Conditions Peak Hour Intersection Level of Service with Mitigation) show LOS results with the proposed mitigation measures. Figure 4.14-24 (Near Term Plus Project Mitigated Intersection Lane Configuration) shows the intersection lane configuration with

proposed mitigation for Near Term Plus Project. The LOS results measured against the respective jurisdiction standards indicate that the study intersections traffic operations would operate at acceptable LOS. Detailed LOS analysis sheets are included in Appendix G.

Table 4.14-18
Near Term Plus Project Conditions Peak Hour Intersection Level of Service with Mitigation

Intersection	Control[1]	Peak Hour	Near Term + Project		Near Term + Project + Mitigation	
			Delay in Sec[2]	LOS	Delay in Sec[2]	LOS
2. Lammers Road/Grant Line Road (County/City-With Project Annexation)	SSS / Signal	AM	18.9 (**>50**)	B(**F**)	17.7	B
		PM	**>50(>50)**	**F(F)**	19.4	B
6. I-205 EB Off-Ramp/Grant Line Road (City / Caltrans)	Signal	AM	16.9	B	13.1	B
		PM	**>80**	**F**	47.5	D
		SAT	**>80**	**F**	44.4	D
17. Access-2/Grant Line Road	SSS / Signal	AM	3.0(23.1)	A(D)	17.3	B
		PM	**>50(>50)**	**F(F)**	21.0	C
19. Access-3/Grant Line Road	SSS	AM	0.9 (13.2)	A(B)	0.4 (9.0)	A(A)
		PM	5.2 (**>50**)	A(**F**)	0.3 (9.9)	A(A)

Note:
1. Signal = signalized intersection, SSS = side street stop intersection (Existing control is SSS and a Signal with Improvement)
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach)
- Bold indicates deficient LOS per jurisdiction's criteria

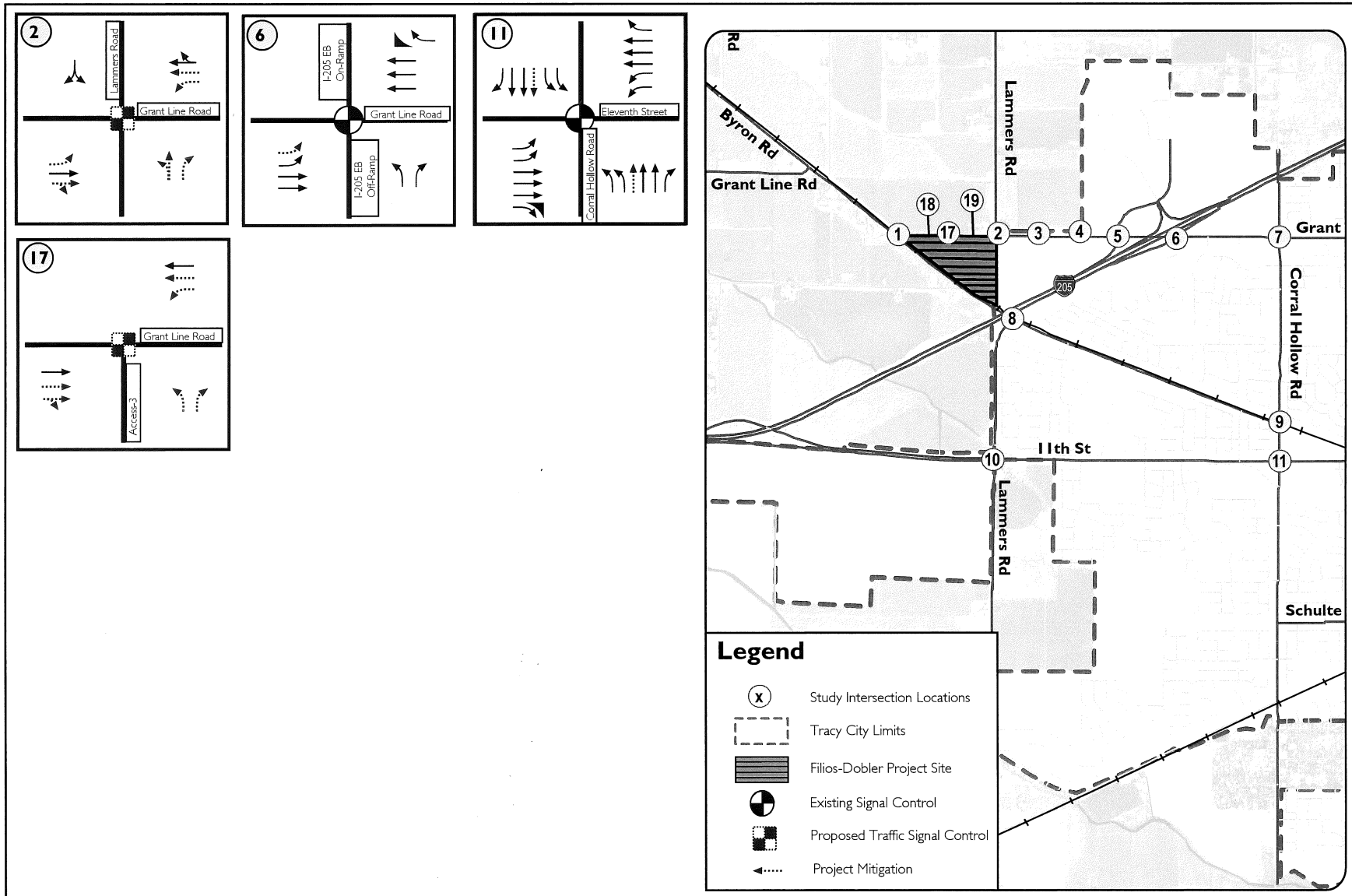
Source: RBF Consulting 2011.

CUMULATIVE PLUS PROJECT CONDITIONS

This section presents a description of traffic volumes and LOS within the study area under Cumulative Conditions 2030 with the proposed Project. The roadway network would remain consistent with Cumulative Conditions except what is proposed by the Project.

CUMULATIVE PLUS PROJECT CONDITIONS TRAFFIC VOLUMES

Project trips were added to Cumulative Conditions Without Project to obtain Cumulative Conditions With Project traffic volumes. Figure 4.14-25 (Cumulative Plus Project Peak Hour Traffic Volumes) and Figure 4.14-26 (Cumulative Plus Project Saturday Mid-Day Traffic Volumes) show Cumulative Conditions With Project for weekday AM and PM peak hour volumes and Saturday mid-day peak hour volumes, respectively.



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Near Term+Project Mitigated Intersection Lane Configuration

Figure 4.14-24

CUMULATIVE PLUS PROJECT CONDITIONS INTERSECTION TRAFFIC OPERATIONS WITH FUTURE LANE CONFIGURATION

Table 4.14-19 (Cumulative Plus Project Conditions Peak Hour Intersection Level of Service) summarizes Cumulative Conditions With and Without Project for weekday AM and PM peak hour LOS for the study intersections. The results were measured against the respective jurisdiction standards and indicate that the addition of the Project trips would result in a significant impact to three of the 15 study intersections, and a full access project driveway. All of these were identified for mitigation in the Existing Plus Project Conditions. In addition, it should be noted that even though the intersection of Corral Hollow Road /Eleventh Street would operate at deficient LOS D, the Project would not significantly impact the intersection (less than would second delay added). Detailed LOS analysis sheets are included in Appendix G.

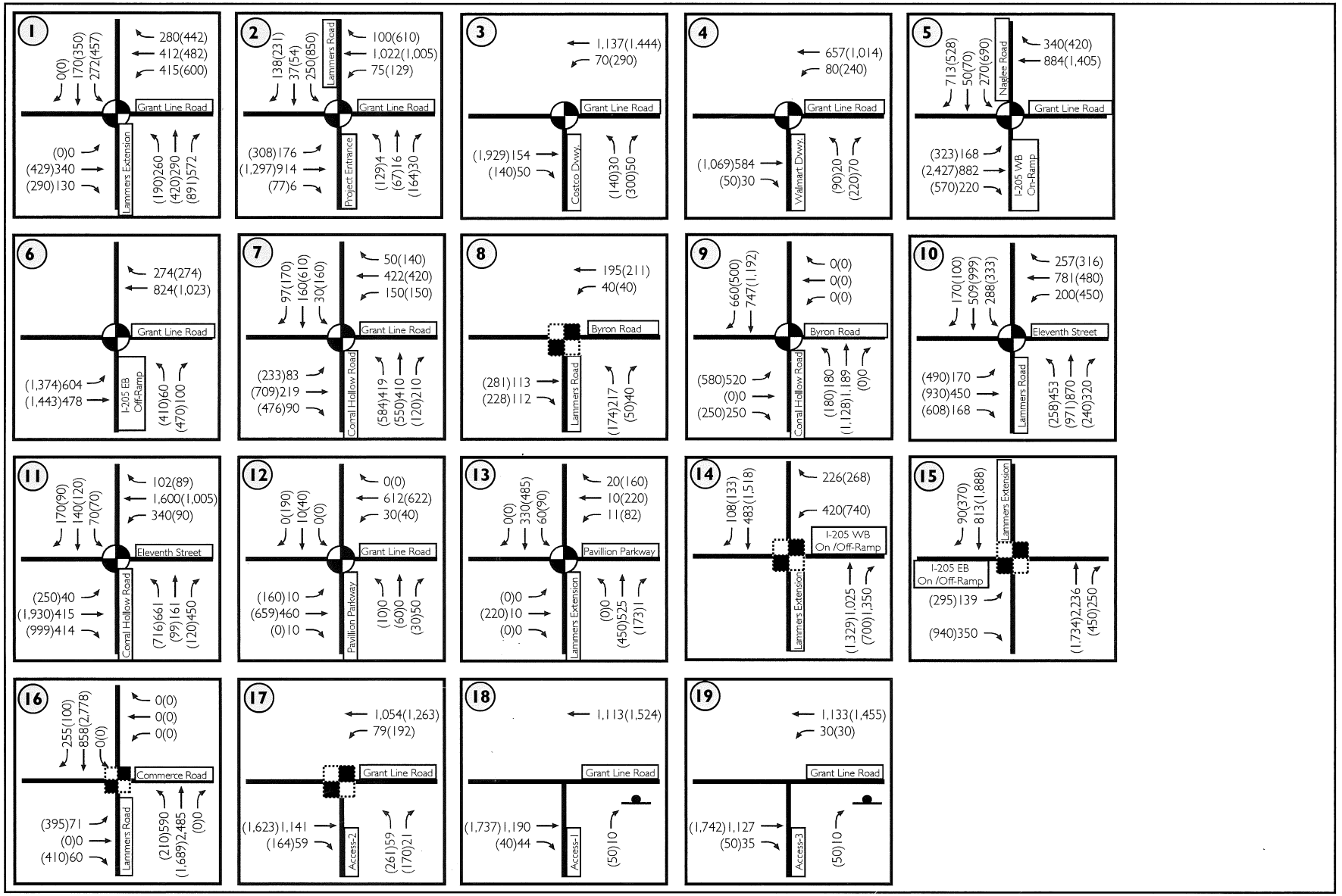
Table 4.14-19
Cumulative Plus Project Conditions Peak Hour Intersection Level of Service

Intersection	Control[1]	Peak Hour	Cumulative		Cumulative + Project	
			Delay in Sec[2]	LOS	Delay in Sec[2]	LOS
1. Byron Road/Grant Line Road (County)	Signal	AM	26.1	C	26.4	C
		PM	27.3	C	37.1	D
2. Lammers Road/Grant Line Road (County/City-With Project Annexation)	Signal	AM	9.7	A	**>80**	**F**
		PM	17.5	B	**>80**	**F**
3. Costco Driveway/Grant Line Road (City)	Signal	AM	16.7	B	15.6	B
		PM	19.0	B	18.4	B
4. Wal-Mart Driveway/Grant Line Road (City)	Signal	AM	32.5	C	31.4	C
		PM	30.1	C	28.9	C
5. Naglee Road/I-205 WB On-Ramp / Grant Line Road (City/Caltrans)	Signal	AM	18.0	B	21.4	C
		PM	18.0	B	19.1	B
		SAT	24.3	C	31.7	C
6. I-205 EB Off-Ramp/Grant Line Road (City/Caltrans)	Signal	AM	23.4	C	23.1	C
		PM	**>80**	**F**	**>80**	**F**
		SAT	**>80**	**F**	**>80**	**F**
7. Corral Hollow Road/Grant Line Road (City)	Signal	AM	18.8	B	19.3	B
		PM	33.1	C	34.8	C
8. Lammers Road/Byron Road (City)	Signal	AM	10.0	B	10.1	B
		PM	11.4	B	11.7	B
9. Corral Hollow Road/Byron Road (City)	Signal	AM	27.6	C	27.8	C
		PM	35.8	D	39.7	D
10. Lammers Road/Eleventh Street (City)	Signal	AM	25.9	C	26.4	C
		PM	27.0	C	28.1	C
11. Corral Hollow Road/Eleventh Street (City)	Signal	AM	22.6	C	23.1	C
		PM	27.4	C	28.5	C
12. Grant Line Road Extension/ Pavilion Parkway (City)	Signal	AM	8.8	A	8.9	A
		PM	18.4	B	18.5	B
13. Intentionally Left Blank						

Intersection	Control[1]	Peak Hour	Cumulative		Cumulative + Project	
			Delay in Sec[2]	LOS	Delay in Sec[2]	LOS
14. Lammers Road Extension/I-205 EB On & Off Ramps (City)	Signal	AM	6.5	A	6.6	A
		PM	8.5	A	8.6	A
		SAT	9.4	A	9.1	A
15. Lammers Road Extension/I-205 WB On & Off Ramps (City)	Signal	AM	7.6	A	7.9	A
		PM	7.2	A	8.7	A
		SAT	8.8	A	9.9	A
16. Lammers Road Extension/ Commerce Way (City)	Signal	AM	7.7	A	7.8	A
		PM	19.9	B	21.8	C
17. Access-2/Grant Line Road	Signal	AM	n/a	n/a	**4.3(>50)**	**A(F)**
		PM	n/a	n/a	**>50(>50)**	**F(F)**
18. Access-1/Grant Line Road	SSS	AM	n/a	n/a	0.1(11.3)	B
		PM	n/a	n/a	0.2 (14.1)	A(B)
19. Access-3/Grant Line Road	SSS	AM	n/a	n/a	0.2 (11.0)	A(B)
		PM	n/a	n/a	0.4 (14.2)	A(B)

Note:
1. Signal = signalized intersection, SSS = side street stop intersection
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach)
- Bold indicates deficient LOS per jurisdiction's criteria

Source: RBF Consulting 2011.



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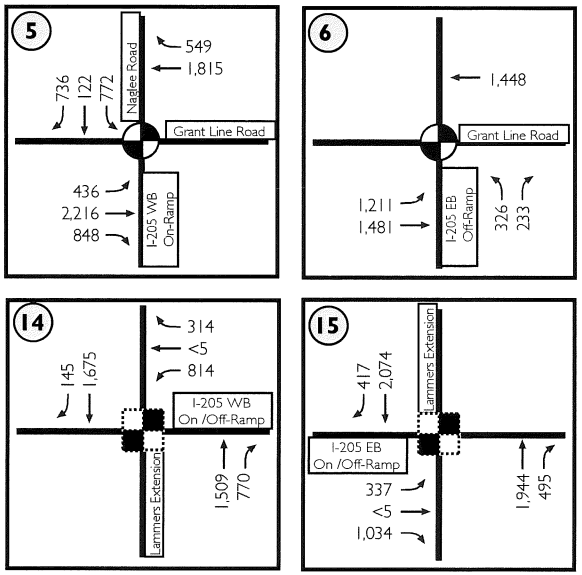
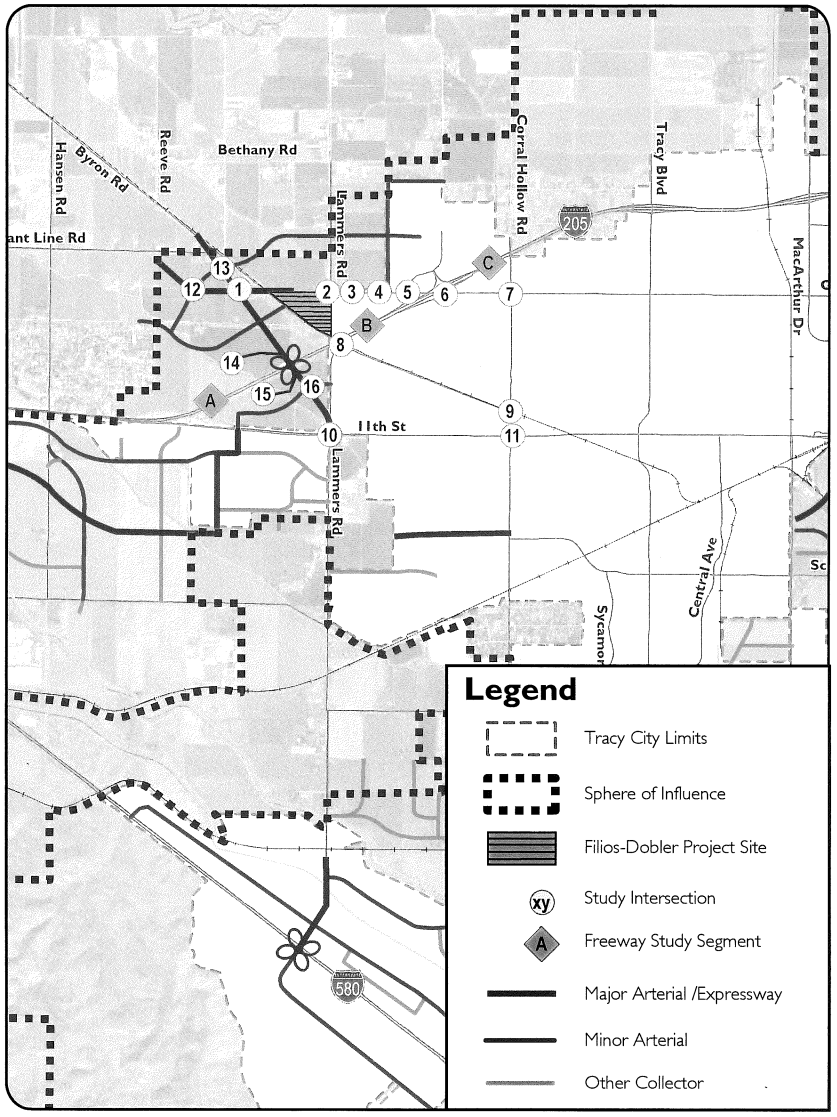
Cumulative+Project Weekday AM(PM) Peak Hour Traffic Volumes

Figure 4.14-25





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Cumulative+Project Saturday Mid-Day Traffic Volumes

Figure 4.14-26

CUMULATIVE CONDITIONS FREEWAY SEGMENT CAPACITY ANALYSIS

Table 4.14-20 (Cumulative Plus Project Conditions Freeway Segment Level of Service) summarizes the Cumulative Conditions With Project freeway densities (vehicles /lane /mile) and the LOS results during the weekday AM and PM peak hours along the freeway study segments. All freeway segments would continue to operate acceptably without the Project. This includes the planned widening of the I-205 freeway to eight lanes per the SJCOG Regional Transportation Plan and the City of Tracy General Plan.

Table 4.14-20
Cumulative Plus Project Conditions Freeway Segment Level of Service

I-205 Freeway Segment Between	Peak Hour	Direction	Cumulative			Project Trips	Cumulative + Project		
			Volume	Density (pc/mil/ln)	LOS		Volume	Density (pc/mil/ln)	LOS
A. Mountain House Parkway and Lammers Extension	AM	WB	6860	26	C	8	6868	26	C
		EB	2718	10	A	19	2737	11	A
	PM	WB	3554	14	B	33	3587	14	B
		EB	6577	25	C	25	6602	25	C
B. Lammers Extension and Grant Line Road	AM	WB	5982	23	C	16	5998	23	C
		EB	2517	10	A	10	2527	10	A
	PM	WB	4051	16	B	38	4089	16	B
		EB	6472	25	C	40	6512	25	C
C. Grant Line Road and Tracy Boulevard	AM	WB	6756	26	C	60	6816	26	C
		EB	3003	12	B	24	3027	12	B
	PM	WB	3650	14	B	79	3729	14	B
		EB	6859	26	C	104	6963	27	D

Source: RBF Consulting 2011.

POTENTIAL IMPACTS AND MITIGATION MEASURES – CUMULATIVE PLUS PROJECT

4.14-8 THE PROPOSED PROJECT, ALONG WITH CUMULATIVE GROWTH, WOULD RESULT IN UNACCEPTABLE OPERATIONS AT FOUR INTERSECTIONS.

Level of Significance Before Mitigation: Potentially Significant Impact.

Impact Analysis:

Project traffic would result in unacceptable traffic operations at the intersections of Lammers Road/Grant Line Road, I-205 Eastbound Off-Ramp/Grant Line Road, Corral Hollow Road/Byron Road and Access-2/Grant Line Road. These four deficient locations were also projected to operate at deficient LOS under Near Term Plus Project Conditions.

With the planned widening of Grant Line Road to six lanes, a traffic signal is assumed at the intersection of Lammers Road/Grant Line Road under Cumulative Conditions. The intersection is projected to operate at LOS B or better without Project traffic and intersection operations would degrade to LOS F during both the AM and PM peak hours with Project traffic. Implementation of Mitigation Measure 4.14-8a would reduce this impact to less than significant.

The intersection of I-205 Eastbound Off-Ramp/Grant Line Road is a Caltrans intersection that is operating at an unacceptable LOS F with and without the Project traffic and the Project would add more

than four seconds of delay. A Project Study Report has been completed for the intersection and a eastbound loop on-ramp identified as future improvement. The reconfiguration of the interchange eastbound ramps and the ramp terminal would improve the operating conditions to acceptable LOS B during the PM peak hour. The project is not currently included in the City's TIF program. The City does, however, plan to update the TIF to include the improvements as part of the 2035 Transportation Master Plan project and the improvement would then be funded. Implementation of Mitigation Measure 4.14-8b requiring the Project applicant to make a fair share contribution toward this improvement would reduce the impact to less than significant.

The Project is estimated to increase the delay at the intersection of Corral Hollow Road/Byron Road intersection by 3.9 seconds from Near Term without the Project. An increase of four or more seconds is the City threshold used to identify a significant impact. Thus, the project would not result in a significant impact at this intersection.

With the addition of Project traffic, the intersection of Access-2/Grant Line Road would operate at an unacceptable LOS F during the AM and PM peak hours. This is considered a potentially significant impact.

Mitigation Measures:

4.14-8a To provide acceptable (LOS D or better) operations at the intersection of Lammers Road/Grant Line Road, a westbound left-turn lane and conversion of one eastbound through lane into a shared through/right-turn lane shall be constructed. These improvements are similar to those recommended in Mitigation Measure 4.14-2. In addition, the northbound approach shall be modified to provide a separate left-turn lane and a shared through/right-turn lane. The Project applicant shall be responsible for implementation of the above improvements prior to occupancy or at a time determined by the City Engineer based on the City's ability to meet City vehicle and pedestrian standards.

4.14-8b The Project applicant shall make a fair share contribution toward implementation of improvements at the intersection of I-205 Eastbound Off-Ramp/Grant Line Road including the construction of an eastbound loop on-ramp through payment of City traffic impact fees.

4.14-8c The addition of a traffic signal, westbound left-turn lane (Mitigation Measure 4.14-5), and separate left-turn and right-turn lanes on the northbound approach shall be required.

Level of Significance After Mitigation: Less Than Significant Impact.

4.14-9 THE PROPOSED PROJECT WOULD ADD TRAFFIC TO I-205 FREEWAY SEGMENTS UNDER CUMULATIVE CONDITIONS.

Level of Significance Before Mitigation: Less Than Significant Impact

Impact Analysis:

The proposed Project would add traffic to freeway segments of I-205 from Mountain House Parkway to Tracy Boulevard. These freeway segments are still projected to operate at an acceptable level, LOS D or

better. The addition of Project traffic is not anticipated to degrade the freeway segment to an unacceptable level.

Mitigation Measure: No mitigation is required.

Level of Significance Before Mitigation: Not applicable.

CUMULATIVE PLUS PROJECT CONDITIONS INTERSECTION TRAFFIC OPERATIONS (WITH MITIGATION)

Table 4.14-21 (Cumulative Plus Project Conditions Peak Hour Intersection Level of Service with Mitigation) show LOS results with mitigation. Figure 4.14-27 (Cumulative Plus Project Mitigated Intersection Lane Configuration) shows the intersection lane configuration for Cumulative Plus Project. The LOS results measured against the respective jurisdiction standards indicate that the study intersections traffic operations would operate at acceptable LOS. Detailed LOS analysis sheets are included in Appendix G.

Table 4.14-21
Cumulative Plus Project Conditions Peak Hour Intersection Level of Service with Mitigation

Intersection	Control[1]	Peak Hour	Cumulative + Project		Cumulative + Project+ Mitigation	
			Delay in Sec[2]	LOS	Delay in Sec[2]	LOS
2. Lammers Road/Grant Line Road (County/City-With Project Annexation)	Signal	AM	**>80**	**F**	17.0	B
		PM	**>80**	**F**	31.6	C
6. I-205 EB Off-Ramp/Grant Line Road (City/Caltrans)	Signal	AM	23.1	C	4.7	A
		PM	**>80**	**F**	13.3	B
		SAT	**>80**	**F**	9.8	A
17. Access-2/Grant Line Road	SSS / Signal	AM	**4.3(>50)**	**A(F)**	7.0	A
		PM	**>50(>50)**	**F(F)**	13.9	B

Note:
1. Signal = signalized intersection, SSS = side street stop intersection (Existing control is SSS and a Signal with Improvement)
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach)
- Bold indicates deficient LOS per jurisdiction's criteria

Source: RBF Consulting 2011.

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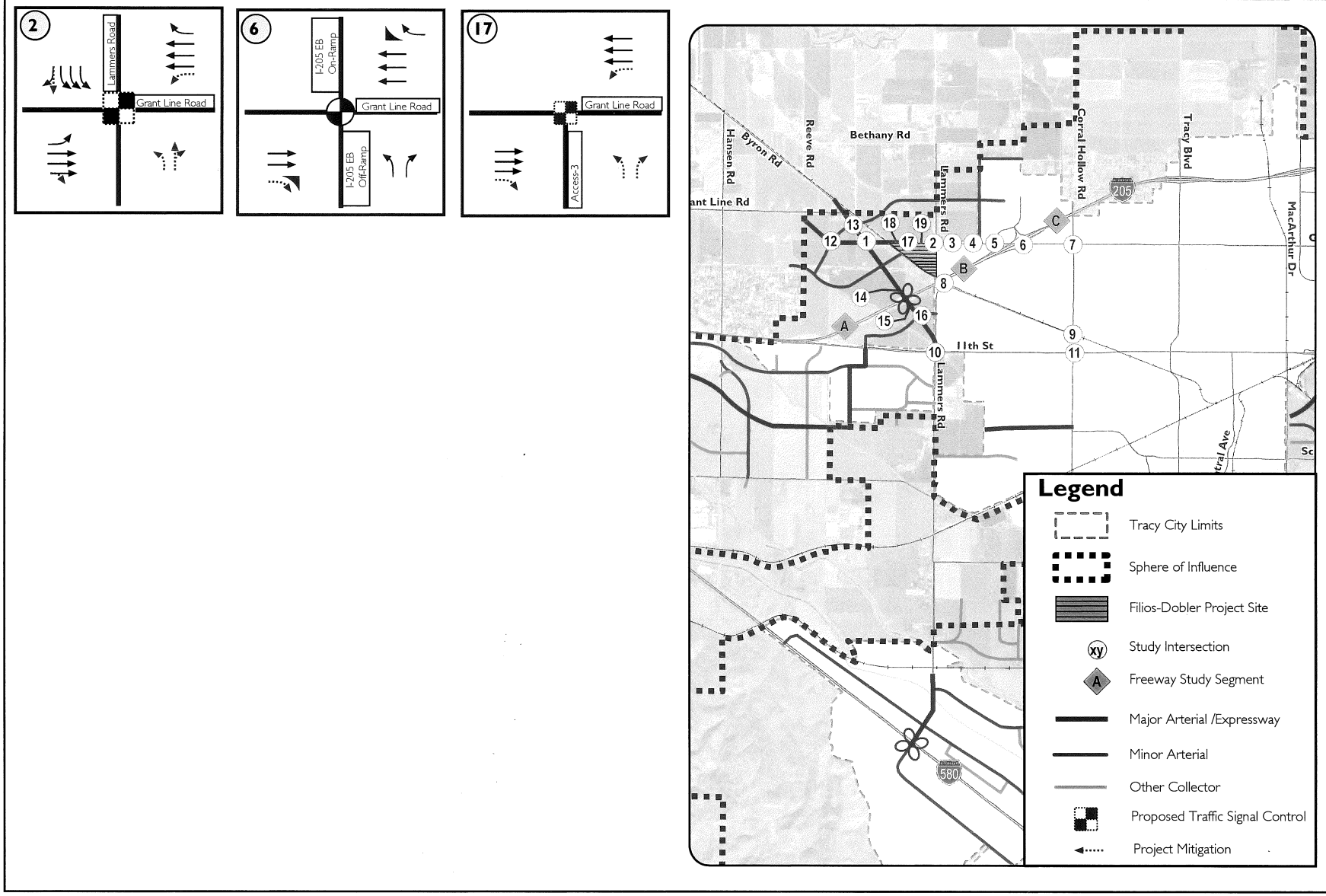

RBF CONSULTING

North

Filios/Dobler Annexation EIR

Cumulative+Project Mitigated Intersection Lane Configuration

Figure 4.14-27

TRANSPORTATION MASTER PLAN (2035) CONDITIONS

The City is currently preparing a Transportation Master Plan (TMP). This project assumes land use buildout to the year 2035, which is five years beyond the current City General Plan buildout year. As part of the TMP, a revised roadway network and a new traffic impact fee program will be developed.

The TMP includes the addition of a new overcrossing at I-205 to connect with Pavillion Parkway, which should alleviate congestion on the proposed Lammers Road Extension and the new I-205 interchange. The proposed Project is included in the 2035 TMP and would contribute towards the future improvements and, thus, offset its cumulative impacts for the TMP.

TMP 2035 CONDITIONS WITH PLANNED LAMMERS ROAD/BYRON ROAD CONNECTOR

While still under analysis in the TMP, as part of the 2035 TMP planning process, the City proposes a roadway connection from Grant Line Road along a Lammers Road alignment to Byron Road via a new railroad over crossing immediately north of the Byron Road under crossing of I-205. This road network connection is evaluated separately in the TMP.

If this connection is constructed, it is anticipated to operate at capacity due to the desire of vehicles on Grant Lane Road to find a short cut to Byron Road and City areas to the south of I-205 and vice versa. Right-of-way would be required from the Project site to construct the connection.

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5.0 GROWTH INDUCING AND CUMULATIVE IMPACTS

5.1 GROWTH INDUCING IMPACTS

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) evaluate the "growth-inducing" effects of a proposed project. According to Section 15126.2(d) of the *CEQA Guidelines*, growth-inducing effects include:

- Fostering economic or population growth, or the construction of additional housing
- Removing obstacles to population growth
- Taxing existing community services or facilities, requiring the construction of new facilities that could cause significant environmental effects
- Encouraging and facilitating other activities that could significantly affect the environment, either individually or cumulatively

A project can directly or indirectly induce growth. Construction of new housing would directly induce growth. However, if a project creates substantial new permanent employment opportunities, it could indirectly induce growth by stimulating the need for additional housing and services to support the new employment demand. It could also indirectly induce growth by removing infrastructure limitations or regulatory constraints on a required public service, such as roads or water service.

Section 15126.2(d) also states that it must not be assumed that growth in any area is necessarily beneficial, detrimental or of little significance to the environment. However, it should be noted that growth can be detrimental if it is not consistent with land use plans and growth management policies established to ensure orderly growth and development that is supported by adequate public services. Should a proposed project induce growth beyond planned levels or rates or exceed reliable population projections, it could indirectly cause additional adverse impacts on the environment and public services beyond those identified, mitigated or acknowledged in local planning documents. Therefore, this growth inducement analysis evaluates the consistency of the growth caused or induced by the proposed Project with the growth envisioned for the City of Tracy (City) in the City of Tracy General Plan (City General Plan).

5.1.1 FOSTER ECONOMIC GROWTH

The proposed Project would provide opportunities for new commercial and office space within the City. This new space could attract new businesses that would provide new employment opportunities within the City. However, it is possible that existing businesses located elsewhere in the City would choose to relocate to some of this new space and would not create new jobs in the City. Nonetheless, the City General Plan identifies the Project site as a location in the City that could provide new employment opportunities. To the extent that additional jobs may be created, the Project could have a growth inducing effect on employment in the City.

5.1.2 POPULATION AND HOUSING GROWTH

No housing is proposed as part of this Project and, therefore, Project implementation would not directly induce population growth. As described above, 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. It is possible that future employees of the proposed commercial and office uses would be hired from within the City or from other locations. Given that the majority of jobs would be in the retail sector, it is expected that most employees would already live in the City and not move there to work at the proposed commercial uses. Furthermore, retail development responds to residential growth rather than causes it.

Moreover, the City has a residential Growth Management Ordinance (GMO), which strives to achieve a steady and orderly growth rate and allow for the adequate provision of services and community facilities. The GMO limits the number of new residential building permits to an average of 600 housing units per year for market rate housing, with a maximum of 750 units in any single year. There are exceptions for affordable housing. For these reasons, the Project would not have any significant influence on indirect residential growth.

5.1.3 REMOVE OBSTACLES TO GROWTH

The Project would require the extension of infrastructure (water and sewer) to connect the site to the surrounding infrastructure network. As previously discussed in Section 4.13, the proposed Project would connect to the Hansen sewer line by constructing a new sewer line under Grant Line Road (pump or lift stations may also be required) and would require the extension of the existing 16-inch water line on Grant Line Road and the existing 12-inch water line running north-south on the eastern side of the Project site. Additional water lines, as well as pump station and water reservoir improvements may be required to provide sufficient water pressure or fire flows. The extension of these infrastructure services would not extend beyond the boundaries of the Project site, and would not result in the delivery of these services to areas that were previous un-served or under-served by these services. Roadway access to the site would be provided by the existing Grant Line Road. Therefore, the Project would not result in an increase in infrastructure capacity beyond the level necessary to serve the Project.

5.1.4 TAX EXISTING COMMUNITY SERVICES OR FACILITIES

Substantial increases in population growth may tax existing community services and facilities, thus requiring the construction of new facilities that could cause significant environmental effects. The construction of new facilities may also result in the need to expand service capacity, which would then allow future population growth. As described in Section 4.13 (Public Services, Utilities and Service Systems), the proposed Project would construct new sewer and water lines to meet the needs of the development proposed for the site and would not result in significant environmental effects related to public services and utilities with the implementation of mitigation measures. Therefore, the proposed Project would not substantially tax existing public services and utilities.

5.2 CUMULATIVE IMPACTS

Section 15130 of the *CEQA Guidelines* requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Where the incremental effect of a project is not "cumulatively considerable," a lead agency need not consider that effect significant, but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. A cumulative impact is created as a result of the combination of the project evaluated in the EIR together with other reasonably foreseeable projects causing related impacts. Cumulative impacts analyses are included in Sections 4.2 through 4.14 in their entirety and are summarized below.

Unless otherwise specified, the cumulative setting is the City Planning Area, which includes the City, its Sphere of Influence (SOI), and the surrounding Planning Area. Under CEQA, the discussion of cumulative impacts should focus on the severity of the impacts and the likelihood of their occurrence. The cumulative scenario for the proposed Project was developed in consultation with City staff, and is consistent with the City's General Plan. This cumulative scenario includes all development envisioned through 2030, with a development pattern consistent with the "Preferred" alternative of the City General Plan EIR. Table 5-1 (City of Tracy SOI Cumulative Development Assumptions) identifies the existing and projected number of residential units and employment opportunities in the City. The cumulative scenario also includes one individual project that has been proposed for implementation since the General Plan EIR was certified in 2006. This approved project and its characteristics are identified in Table 5-2 (Approved Projects).

Table 5-1
City of Tracy SOI Cumulative Development Assumptions

	Dwelling Units	Employment
Existing	28,157	28,834
Incremental Growth	10,943	26,487
Citywide Cumulative Total	39,100	55,321
Source: City of Tracy, Ellis Specific Plan EIR, 2008		

Table 5-2
Approved Project

Project	Location	Characteristics	Status
Ellis Specific Plan	Located within the City's SOI, near the southwestern border of the City limits within the Ellis Specific Plan area.	• 321-acre project site • 2,250 residential units Village Center • Open Space • 180,000 sq. ft. commercial space • Additional recreational amenities	Approved on Dec. 16, 2008
Source: City of Tracy, 2011			

There are two approaches to identifying cumulative projects and the associated impacts. The projection approach uses a summary of projections in adopted General Plans or related planning documents to identify potential cumulative impacts. The list approach identifies individual projects known to be occurring or proposed in the surrounding area in order to identify potential cumulative impacts. This EIR uses a combination of the projection approach and the list approach for the cumulative analysis and considers the development anticipated to occur upon buildout of the City General Plan in addition to the individual project identified in Table 5-2 above.

5.2.1 LAND USE AND PLANNING

The City General Plan EIR analyzed the long-term development of the City and found that no significant impacts relative to land use and planning would occur with implementation of the City General Plan. The proposed Project would generally be consistent with the City General Plan vision for UR 2. However, the proposed Project would increase the amount of commercial and office use compared to the projections of the City General Plan and City General Plan EIR. Thus, the proposed Project would potentially allow

more commercial and job generating uses compared to the projections of the City General Plan and City General Plan EIR. Nonetheless, these changes would not cause substantial disruption within the established community or conflicts with adopted plans and policies related to avoidance or mitigation of environmental effects. Therefore, no cumulative impacts relative to land use and planning are expected with implementation of the proposed Project.

5.2.2 AESTHETICS

Future development at the Project site and under the City's General Plan could potentially result in the alteration of the existing rural and natural landscape in the region, if not mitigated. Individual projects proposed within the Project area must be designed consistent with policies established in the City's General Plan, I-205 Corridor Specific Plan and Municipal Code. In addition, project specific mitigation would reduce visual impacts on a project-by-project basis.

Implementation of the proposed Project would not result in impacts to existing views/scenic vistas and scenic highways; therefore, the Project would not contribute to cumulative impacts with regard to views/vistas and scenic highways.

The Project would result in a less than significant impact with regard to light and glare with implementation of recommended Mitigation Measures 4.3-2a and 4.3-2b identified in Section 4.3 (Aesthetics). Although the City General Plan EIR identifies light and glare impacts associated with General Plan buildout to be potentially significant, the General Plan EIR identifies a mitigation measure to reduce these impacts to less than significant. Therefore, with implementation of the Project-specific Mitigation Measures 4.3-2a and 4.3-2b, the Project would not cumulatively contribute to light and glare impacts.

The City General Plan EIR identified significant and unavoidable character/quality impacts with buildout of the General Plan, due to the amount of development permitted within the City limits and Sphere of Influence. Therefore, as development occurs within the Project site and within the City limits and Sphere of Influence, residents and visitors in the area would notice the visual effects of urbanization. The significance of these visual and aesthetic changes is difficult to determine, as aesthetic value is subjective, potential impacts are site-specific, and cumulative project details are unknown at this time.

5.2.3 AGRICULTURAL RESOURCES

The City General Plan EIR analyzed the long-term development of the City and found that implementation of the City General Plan would result in the permanent conversion of farmland to non-agricultural use. The City General Plan includes several policies and actions under Objective OSC-2.1 stating that the City will work at a regional level to control the conversion of agricultural uses.

The Project proposes the development of a mix of commercial and office uses, which would permanently convert Prime Farmland to non-agricultural use. Other projects within the County and state undertaken in agricultural areas would also convert Important Farmland to non-agricultural use. While local and regional programs and regulations would help reduce the cumulative loss of agricultural land throughout the state, the proposed Project in combination with other development projects undertaken in agricultural areas would result in a net permanent loss of agricultural land to non-agricultural use, which would be significant and unavoidable. The proposed Project's contribution would be cumulatively considerable, as there is no way to recreate the agricultural land it would convert to non-agricultural use.

5.2.4 AIR QUALITY

Impacts from area and mobile source emissions would be significant and unavoidable. Since construction emissions from future development projects within the Project area cannot be mitigated to a less than significant level, operation of those projects would exceed San Joaquin Valley Air Pollution Control District (SJVAPCD) thresholds, and the construction and operation of 466,000 square feet of commercial and office uses would have similar significant and unavoidable impacts. Thus, cumulative impacts would be considered significant and unavoidable.

The proposed Project would be consistent with the City General Plan vision for UR 2 land use designation. The General Plan EIR analyzed the long-term development of the City and found that buildout under the City General Plan is projected to lead to substantial increases in vehicle miles traveled and contribute to existing air quality issues in the Basin. These air quality impacts associated with increases in regional traffic are anticipated to occur after 2030, constituting a cumulatively significant impact. As a result, the proposed Project would have significant air quality impact at both the Project and the cumulative level.

5.2.5 GREENHOUSE GAS EMISSIONS

Although the proposed Project would be consistent with the City's General Plan and Sustainability Action Plan and would incorporate relevant measures within the Sustainability Action Plan, Project GHG emissions would not meet SJVAPCD criteria and impacts would be significant and unavoidable. Project-generated GHGs in combination with GHG emissions from other known and reasonably foreseeable projects would result in a much greater amount of GHG emissions.

It is generally the case that an individual project of the size and nature of the proposed Project is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory.[1] GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective.[2] However, because the Project's impacts associated with GHG emissions would be significant and unavoidable, the Project's cumulative-related GHG emissions would also be significant and unavoidable.

5.2.6 BIOLOGICAL RESOURCES

Foreseeable future actions within the vicinity of the Project site would result in considerable disturbance to special-status wildlife and plants, their habitats, and other sensitive biological resources. However, the incremental effect of the proposed Project, when combined with the effects created by other past and reasonably foreseeable projects, would not be cumulatively considerable or significant because the Project applicant would obtain regulatory approvals and implement the mitigation measures previously described to address direct and indirect effects of the Project. The Project would also fully comply with the terms and requirements of the San Joaquin Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

[1] California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, 2008.

[2] Ibid.

5.2.7 CULTURAL RESOURCES

The proposed Project has the potential to damage or destroy potentially significant unknown cultural resources because their subsurface presence cannot be conclusively ruled out. Mitigation Measure 4.8-1 identified in Section 4.8 (Cultural Resources) would help to protect potentially significant unknown cultural resources from damage, destruction, or information loss as a result of Project construction. Therefore, implementation of this mitigation measure, along with implementation of similar mitigation measures by other projects in City's Planning Area and western San Joaquin County, would prevent the Project from cumulatively contributing to the damage or destruction of cultural resources.

5.2.8 GEOLOGY AND SOILS

Future development would not result in significant effects associated with seismic or soil hazards with adherence to applicable state and local regulations, codes and requirements and implementation of Mitigation Measure 4.9-1 identified in Section 4.9 (Geology and Soils). Other individual development projects would be reviewed for seismic safety and would be required to comply with local regulations, codes and requirements. Moreover, none of the cumulative projects would reasonably be expected to be affected by the exact same seismic or soil impacts as the proposed Project due to the unique characteristics of each project and site. Therefore, the proposed Project's geology and soils impacts would not be cumulatively considerable.

5.2.9 HAZARDS AND HAZARDOUS MATERIALS

The incremental effect of the proposed Project, when combined with the effects created by other past, present and reasonably foreseeable projects, would not be cumulatively considerable or significant because the Project would be required to comply with federal, state and local regulations, which would ensure that potential contamination or exposure to hazardous materials would be avoided or minimized on a case-by-case basis. Impacts in this regard are less than significant with compliance of applicable federal, state and local regulations and implementation of recommended mitigation measures.

5.2.10 HYDROLOGY AND WATER QUALITY

Future development of the Project site would not result in any significant impacts with the implementation of mitigation measures. In addition, future development within the Project vicinity would be guided by the City General Plan, and associated planning and environmental documents. Each project would be subject to the City planning process. Impacts on hydrology and water quality would not be cumulatively considerable.

5.2.11 NOISE

The proposed Project would introduce the use of stationary equipment that would increase noise levels within the area. Based on the long-term stationary noise analysis, impacts would be less than significant. Because noise dissipates as it travels away from its source, noise impacts from onsite stationary sources would be limited to each of the respective sites and their vicinities. Future development proposals within the City would also require separate discretionary approval and CEQA assessment, which would address potential noise impacts and identify necessary attenuation measures, where appropriate. Therefore, in conjunction with cumulative projects, the proposed Project would not have the potential to result in cumulatively significant stationary noise impacts.

A significant cumulative mobile noise impact would result only if both the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon and drastically reduces as distance from the source increases. Consequently, only proposed projects and growth anticipated to occur in the general vicinity of the Project area would contribute to cumulative noise impacts. The proposed Project would not exceed either the combined or incremental effects criteria. Thus, the proposed Project would not result in long-term mobile noise impacts based on Project generated traffic or cumulative and incremental noise levels. Therefore, less than significant impacts would occur in this regard.

5.2.12 PUBLIC SERVICES, UTILITIES AND SERVICE SYSTEMS

Future development of the Project site would not result in any significant impacts to public services, utilities and service systems with the implementation of mitigation measures. Future development within the Project vicinity would be guided by the City and County General Plans, and associated planning and environmental documents. Each project would be subject to the City and/or County planning process. As part of this planning process, the payment of appropriate fees (including development impact fees) by all development projects would be required to mitigate any effects on public services, utilities and service systems and minimize cumulative impacts on a project-by-project basis. Furthermore, the City and County Fire Departments and Police/Sheriff Departments would be involved in the development review process for all projects in the City and County, and would continue to provide input into the review of new projects. Future development would be also required to comply with all federal, state and local regulations and ordinances protecting utility services, including complying with all water conservation measures and waste minimization efforts in accordance with City and County requirements. Therefore, the incremental impact associated with the proposed Project would not contribute to cumulative long-term impacts on public services, utilities and service systems and, therefore, would not be cumulatively considerable.

5.2.13 TRANSPORTATION/TRAFFIC

The proposed Project along with cumulative growth would result in unacceptable operations at four intersections: Lammers Road/Grant Line Road; 1-205 Eastbound Off-Ramp/Grant Line Road; Corral Hollow Road/Byron Road; and Access-2/Grant Line Road. Mitigation Measures 4.14-10a through 4.14-10c identified in Section 4.14 (Transportation/Traffic) would reduce this cumulative impact to less than significant. Although the proposed Project would add traffic to 1-205, impacts would be less than significant under cumulative conditions.

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6.0 ALTERNATIVES

6.1 INTRODUCTION

Section 15126.6 of the California Environmental Quality Act Guidelines (*CEQA Guidelines*) requires an Environmental Impact Report (EIR) to describe and evaluate a reasonable range of alternatives to a proposed project. The purpose of the evaluation is to identify ways to mitigate or avoid the significant effects that a project may have on the environment. The range of alternatives required in an EIR is governed by a "rule of reason" that requires an EIR to select and evaluate only those alternatives necessary to permit a reasoned choice (*CEQA Guidelines* Section 15126.6[f]). An EIR does not need to consider every conceivable alternative to a proposed project, nor is it required that an EIR consider alternatives that are infeasible. Rather, it must consider alternatives that could feasibly attain most of the project's basic objectives, while avoiding or substantially lessening any significant adverse environmental effects of the project. The EIR must evaluate the comparative merits of the alternatives and provide sufficient information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed project to foster informed decision-making and public participation. In addition, *CEQA Guidelines* Section 15126.6(e) requires that an EIR specifically evaluate the impacts associated with the alternative of "no project" to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.

This chapter provides a brief description of the proposed Project, Project goals and objectives and potentially significant Project impacts, followed by a description and evaluation of each alternative selected for inclusion in the EIR. Finally, this chapter concludes with a comparison of the alternatives and identification of the environmentally superior alternative.

6.2 PROJECT SUMMARY

6.2.1 PROJECT CHARACTERISTICS

As described in Chapter 3 (Project Description), the Filios/Dobler Annexation Project (Project) proposes to annex approximately 43 acres of unincorporated land to the City of Tracy (City); amend the City General Plan land use designation of the Project site from Urban Reserve 2 (UR 2) to Commercial; amend the I-205 Corridor Specific Plan to add the Project site to the Specific Plan area, designate it General Commercial (GC) and amend the freeway sign height and size standards; and Prezone the Project site Planned Unit Development (PUD). In addition, the Project includes a maximum of 466,000 square feet of commercial/office uses to be built on the Project site. The analysis of 466,000 square feet is consistent with the General Plan UR 2 statistical profile in terms of the percentage of land assumed for commercial/retail use (83 percent) and for office use (17 percent). After dedication of land for the Grant Line Road right-of-way, the net size of the site may be at or near 40 acres. The I-205 Corridor Specific Plan allows a floor area ratio (FAR) of up to 0.25 for retail land uses and 0.35 for one-story office uses. Applying the 0.25 FAR to 83 percent of the site (approximately 33 acres) and 0.35 to 17 percent of the site (approximately seven acres) yields approximately 466,000 square feet of floor area. This amount of floor area will be the assumed buildout for the Project. The inclusion of this scenario is necessary in order to evaluate the potential environmental consequences of the Project, since the City has not received an application for specific improvements to the Project site. Additional building area or more intense development would require additional analysis pursuant to CEQA.

6.2.2 PROJECT OBJECTIVES

The following are the Project objectives:

- Implement the City of Tracy General Plan
- Provide for the expansion of the City's regional commercial corridor
- Develop a Commercial Center of adequate size with reasonable freeway exposure (including a freestanding freeway sign) and access to attract new anchor tenants
- Remain consistent with the principles and objectives of the I-205 Corridor Specific Plan
- Provide and maintain connectivity with the existing shopping areas of the I-205 Corridor Specific Plan and increase opportunities for connectivity to residential areas south of the Project site
- Construct commercial and office buildings consistent with the development potential anticipated for the Project site by the City General Plan

6.2.3 POTENTIALLY SIGNIFICANT PROJECT IMPACTS

Chapter 4 (Environmental Analysis) of this EIR describes the potential impacts of the proposed Project. As identified in that chapter, the Project would result in a number of potentially significant environmental impacts, some of which could be mitigated to less than significant levels. The following summarizes the proposed Project's impacts:

- Land Use and Planning – The proposed Project could conflict with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) resulting in a potentially significant impact. Mitigation identified in Section 4.1 (Land Use and Planning) requiring compensation for the loss of habitat and its conversion to urban use, would fulfill the mitigation requirements of the SJMSCP and reduce impacts to less than significant.
- Aesthetics – Project construction would create temporary views of construction debris and construction-related activities, which may result in the degradation of character of the Project area and affect the view of the site from nearby residences and passing motorists. This routine impact from typical, temporary construction activities would be short-term in duration and, therefore, result in a less than significant impact. With implementation of the standards and regulations required by the I-205 Corridor Specific Plan and the City's process for review of development applications, future development at the Project site would be consistent with the existing commercial land uses in the area. Thus, impacts in this regard would be less than significant. In addition, the Project would introduce new temporary construction-related and permanent sources of light and glare from street lights, building lights, security lights and parking lot lights. Mitigation identified in Section 4.3 (Aesthetics) would reduce this impact to less than significant.
- Agricultural Resources – The Project would result in the conversion of approximately 43 acres of land designated Prime Farmland to non-agricultural use, which would be a significant and unavoidable impact. In addition, the proposed Project would result in a significant and unavoidable cumulative impact from the loss of agricultural land within San Joaquin County and the state. Proposed mitigation would not reduce impacts to less than significant. Future development of commercial and office uses on the Project site could conflict with adjacent agricultural land uses, leading to their indirect conversion to non-agricultural use. However, buffers created by Grant Line Road, the Union Pacific Railroad (UPRR) line and Byron Road would prevent any potential for the Project to indirectly convert adjacent agricultural land to non-agricultural use, resulting in a less than significant impact.

- Air Quality – Project construction would result in potentially significant short-term increases in particulate (fugitive dust) and exhaust emissions that could be reduced to less than significant with implementation of mitigation measures identified in Section 4.5 (Air Quality). During the operational stage, traffic associated with the proposed commercial/office uses would increase air pollutant concentrations and exceed established thresholds. Mitigation identified in Section 4.5 would reduce air pollutant concentrations caused by Project traffic, but not to a less than significant level, resulting in a significant and unavoidable impact. The Project would not exceed established thresholds for carbon monoxide (CO) hotspots, odors or toxic air contaminants and related impacts would be less than significant. However, because the Project would exceed established thresholds for criteria pollutants even after the implementation of design features and recommended mitigation measures, it would result in a significant and unavoidable conflict with the applicable air quality attainment plan. Finally, the Project would result in a significant and unavoidable cumulative impact from increases in criteria air pollutants.
- Greenhouse Gas Emissions – As identified in Section 4.6 (Greenhouse Gas Emissions), Project design features and implementation of measures identified in the City's Sustainability Action Plan would not reduce Project-related greenhouse gas (GHG) emissions below San Joaquin Valley Air Pollution Control District (SJVAPCD) criteria. Thus, impacts would be significant and unavoidable. In addition, the Project's cumulative impacts associated with GHG emissions would be significant and unavoidable.
- Biological Resources – Project construction activities have the potential to disrupt the foraging activities of several special-status bird species, including Swainson's hawk, burrowing owl, white-tailed kite and loggerhead shrike, as well as SJMSCP covered species, the California horned lark. In addition, during the nesting season, Project construction could result in the incidental loss of fertile eggs or nestlings or nest abandonment for Swainson's hawk, burrowing owl, white-tailed kite, loggerhead shrike and the California horned lark, as well as direct injury and/or mortality of burrowing owls, white-tailed kite, loggerhead shrike and the California horned lark. Moreover, construction activities associated with the Project have the potential to result in the injury or mortality of individuals of several special-status bat species and the loss of one or more maternity colonies. Project construction also has the potential to result in San Joaquin kit fox injury or mortality. Construction activities have the potential to cause short-term noise impacts on nearby foraging and nesting Swainson's hawks and burrowing owls within and adjacent to the Project site. In addition, development of the Project site with the proposed commercial/office uses would result in the loss of burrowing owl habitat, Swainson's hawk foraging habitat, and potential foraging and refuge habitat for San Joaquin kit fox. Mitigation identified in Section 4.7 (Biological Resources) requiring compensation for the loss of habitat and its conversion to urban use would fulfill the mitigation requirements of the SJMSCP and reduce impacts to less than significant. In addition, the Project would result in a less than significant impact due to the loss of regionally abundant vegetation types and would be unlikely to spread or introduce invasive plant and animal species resulting in less than significant impacts in this regard.
- Cultural Resources – Construction activities associated with the proposed Project could expose potentially significant unrecorded cultural resources, including human remains, resulting in their damage or destruction. Mitigation identified in Section 4.8 (Cultural Resources) would reduce this potentially significant impact to less than significant.
- Geology and Soils – Moderate ground shaking and secondary events such as liquefaction could threaten the integrity of the proposed commercial and office buildings and the safety of people present on the Project site. Future development of the Project site would involve vegetation removal and grading, which would expose soils and increase the potential for soil erosion from wind or stormwater runoff. Underlying Project soils have high liquefaction potential, which could

damage the proposed commercial and office buildings during an earthquake. Finally, the expansive nature of the Project site soils could create severe structural damage and endanger occupants and visitors of the proposed commercial and office buildings. All these potentially significant impacts could be reduced to less than significant with the implementation of the requirements of the California Building Code and Tracy General Plan, and mitigation identified in Section 4.9 (Geology and Soils).

- Hazards and Hazardous Materials – The proposed Project has the potential to accidentally expose construction workers and occupants and visitors of the proposed commercial and office buildings to hazardous materials such as asbestos containing materials (ACMs) or lead-based paints (LBPs) from existing onsite uses, pesticide residues in the soil from past agricultural activities, residual crude oil and Bunker C soil contamination caused by offsite oil pipeline leaks and diesel vapor intrusion from potentially contaminated groundwater. In addition, the Project may subject people or structures to a significant risk of loss, injury or death as a result of exposure to wildland fires. Compliance with all applicable federal and state laws related to the use, storage, disposal and transportation of hazardous materials would reduce the likelihood and severity of accidents during transit, resulting in a less than significant impact. In addition, the Project would not interfere with the implementation of emergency response plans and less than significant impacts would occur in this regard. All potentially significant impacts would be reduced to a less than significant level with implementation of mitigation measures identified in Section 4.10 (Hazards and Hazardous Materials).
- Hydrology and Water Quality – Construction and operation of the proposed Project could degrade water quality within the Project area. However, future development on the Project site would be required to comply with state and local water quality regulations, resulting in a less than significant impact in this regard. The proposed Project would increase the demand for groundwater, but it would not substantially deplete groundwater supplies, as the City has sufficient water supplies, including groundwater supplies to serve the Project and the City's other existing and projected future water demands. In addition, given the relatively large size of the groundwater basin in the Tracy area, the impervious surface area added as a result of the Project would not adversely affect the recharge capabilities of the local groundwater basin. Thus, the Project would have less than significant impacts related to groundwater supply and recharge. Future development would involve vegetation removal, grading and the construction of buildings, parking lots, sidewalks and driveways, which would alter existing drainage patterns and increase the potential for erosion and/or siltation. The Project would increase the amount of impervious surface onsite, which would change existing absorption rates, drainage patterns and the amount of stormwater runoff and could result in potential flooding on and offsite or exceed the capacity of existing or planned stormwater drainage systems. A combination of mitigation identified in Section 4.11 (Hydrology and Water Quality) and compliance with state and local policies and regulations would reduce these potentially significant impacts to less than significant.
- Noise – Project construction would result in potentially significant temporary increases in noise. However, vibration associated with construction would be less than significant. During operation, noise from mechanical equipment and loading docks could exceed City standards for sensitive uses (resulting in a potentially significant impact). Parking lot and landscape maintenance noise was determined to be less than significant. Traffic noise from the Project would not exceed City standards in the near term or long term. Railroad noise would also not exceed City standards and related impacts would be less than significant. A combination of mitigation identified in Section 4.12 (Noise) and compliance with City policies and regulations would reduce the Project's potential noise impacts to less than significant.
- Public Services, Utilities and Service Systems – The Tracy Fire Department (TFD) would be able to serve the proposed Project within established response times after Station 96 is relocated to

1800 W. Grant Line Road. This relocation project is scheduled to be complete in fiscal year 2012/2013 (CIP# 71061). According to the Tracy Police Department, the proposed Project would result in the need for approximately 0.5 full time equivalent (FTE) of an additional police officer. The Project would be subject to public facilities impact fees to offset its impacts on police and fire facilities and, therefore, impacts would be less than significant. Moreover, the Project's impacts on schools would be less than significant with payment of school impact fees. There is sufficient wastewater capacity, water supply and solid waste capacity to serve the proposed Project. However, the Project would need to construct new wastewater lines and possibly additional water lines and/or pump station and water reservoir improvements. Construction-related impacts associated with these improvements (short-term increases in noise and air pollutants, as well as temporary traffic delays) would be reduced to less than significant with adherence to City requirements and mitigation identified in Section 4.5.

- Transportation/Traffic – The addition of Project traffic to existing conditions would cause operations at the following intersections to degrade to an unacceptable level of service (LOS): Lammers Road and Grant Line Road (AM and PM peak hour); I-205 Eastbound Off-Ramp and Grant Line Road (PM peak hour and Saturday peak hour); and Access-2 and Grant Line Road (PM peak hour). Under existing conditions, the addition of Project traffic at the intersection of Access-3 and Grant Line Road could result in unsafe driving conditions. The addition of Project traffic along with near term growth (anticipated growth at Project buildout – Year 2015) would cause operations at the following intersections to degrade to an unacceptable LOS: Lammers Road and Grant Line Road; I-205 EB Off-Ramp and Grant Line Road; Access-2 and Grant Line Road; and Access-3 and Grant Line Road. Under cumulative conditions (anticipated growth at Year 2030), the proposed Project along with cumulative growth would result in unacceptable LOS at the following four intersections: Lammers Road and Grant Line Road; I-205 Eastbound Off-Ramp and Grant Line Road; Corral Hollow Road and Byron Road; and Access-2 and Grant Line Road. All impacts would be reduced to less than significant with mitigation identified in Section 4.14 (Transportation/Traffic).

6.3 PROJECT ALTERNATIVES

6.3.1 SELECTION OF ALTERNATIVES

In accordance with CEQA, appropriate project alternatives are those that meet most of the project's basic objectives and avoid or substantially lessen the significant environmental impacts of the proposed project. The alternatives analyzed in this chapter were selected for their potential to eliminate or reduce Project impacts, or for their potential to generate fewer impacts or require lesser levels of mitigation. These alternatives include:

- Alternative 1: No Project/No Build (Status Quo)
- Alternative 2: Mixed-Use Development
- Alternative 3: Industrial Development

The Draft EIR does not analyze an alternative site for the proposed Project because the basic project objectives are to implement the City's General Plan on the Project site.

6.3.2 COMPARISON OF ALTERNATIVES

CEQA does not specify the methodology for comparing alternatives. However, the issues and impacts that are most germane to a particular project must be evaluated when comparing an alternative to a

proposed project. As such, the issues and impacts analyzed in project alternatives vary depending on the project type and the environmental setting. Long-term impacts (e.g., visual impacts and permanent loss of habitat or land use conflicts) are those that are generally given more weight in comparing alternatives. Impacts associated with construction (i.e., temporary or short-term) or those that are easily mitigable to less than significant levels are considered to be less important.

The alternatives analysis below compares each alternative to the proposed Project according to whether it would have a mitigating or adverse effect for each of the environmental resource areas analyzed in this EIR.

6.3.3 ALTERNATIVES ANALYSIS

ALTERNATIVE 1: NO PROJECT/NO BUILD (STATUS QUO)

Description of Alternative

Under the No Project/No Build (Status Quo) Alternative (Alternative 1), there would be no physical or operational changes at the Project site and, thus, the existing conditions would remain unchanged. The Project site would not be annexed to the City, the City of Tracy General Plan (City General Plan) and I-205 Corridor Specific Plan would not be amended, and the site would not be Prezoned Planned Unit Development (PUD).

Environmental Impacts Compared to the Project

Land Use and Planning

Under Alternative, hay production would continue and the existing three homes and their associated outbuildings and the existing welding shop would remain. This alternative would not need to seek coverage under the SJMSCP and, thus, would not have any potential to conflict with the plan. Alternative 1 would not be consistent with the City General Plan vision for the Project site. Therefore, this alternative would have a lesser impact than the proposed Project regarding conflicts with the SJMSCP and a greater impact regarding City General Plan consistency.

Aesthetics

Under Alternative 1, the overall character and appearance of the Project site would not change from existing conditions. Because Alternative 1 would not construct any improvements it would not result in the less than significant impact from construction-related activities. In addition, Alternative 1 would not degrade the overall character and appearance of the Project area or introduce new temporary construction-related and permanent sources of light and glare. Thus, Alternative 1 would completely avoid the proposed Project's impacts on the visual character/quality of the Project area.

Agricultural Resources

Under Alternative 1, hay production would continue and the entire Project site would retain its Prime Farmland designation, completely avoiding the proposed Project's significant and unavoidable impact that would result from the conversion of approximately 43 acres of Prime Farmland designated land to non-agricultural use. Alternative 1 would also avoid the proposed Project's significant and unavoidable impact resulting from the cumulative loss of agricultural land within San Joaquin County and the state.

Air Quality

Alternative 1 would entirely avoid all the potentially significant, but mitigable and significant and unavoidable air quality impacts of the Project because no new development would occur. However, existing uses at the Project site would continue to be a minor source of air pollution with site maintenance and agricultural production activities (tractors, tillers, worker vehicles, water pumps, etc.) creating the primary source of emissions and vehicular trips associated with the single-family homes creating less air pollution. Consequently, Alternative 1 would have less of an air quality impact than the proposed Project.

Greenhouse Gas Emissions

Alternative 1 would result in substantially less GHG emissions than the proposed Project. While there would be some GHGs produced as a result of site maintenance/agricultural production activities and the single-family residential uses/vehicle trips, Alternative 1 would not produce excessive GHG emissions that could have a significant impact on the environment, nor would it conflict with an applicable GHG reduction plan, policy or regulation. Consequently, Alternative 1 would result in reduced GHG impacts compared to the proposed Project.

Biological Resources

Because existing conditions would remain unchanged with Alternative 1, there would be no loss of burrowing owl habitat, Swainson's hawk foraging habitat and potential foraging and refuge habitat for San Joaquin kit fox. In addition, there would not be any potential for special-status bat species injury or mortality or the loss of one or more maternity colonies, as none of the existing buildings would be removed. Moreover, the agricultural operations associated with Alternative 1 would result in fewer ground disturbing activities than the proposed Project. However, given that agricultural production would occur on a regular basis, it would have the potential to disrupt the foraging activities of bird species; result in the incidental loss of fertile eggs or nestlings, nest abandonment, direct injury and/or mortality during the nesting season; and result in San Joaquin kit fox injury or mortality. Nonetheless, given that agricultural activities currently occur on the Project site and it provides bird foraging and nesting habitat, as well as burrowing owl habitat and potential San Joaquin kit foraging and refuge habitat, there would be no greater impact to special-status species than currently exists. Therefore, the biological resource impacts associated with Alternative 1 would be reduced compared to the proposed Project.

Cultural Resources

Existing agricultural operations on the Project site have the potential to accidentally uncover and damage unrecorded cultural resources and this risk would not change with implementation of Alternative 1. However, this alternative would result in fewer and less disruptive ground disturbing activities than the proposed Project, which would reduce the potential of unintentional discovery and destruction of potentially significant unrecorded cultural resources compared to the Project.

Geology and Soils

Alternative 1 would result in the Project site remaining in its existing condition. The single-family homes would remain and active agricultural production would continue. The existing homes on the site would be at risk for the same seismic or geologic hazards (moderate ground shaking, liquefaction, expansive soils) as the structures proposed by the Project. However, Alternative 1 would expose substantially fewer buildings and people to potential risks associated with geologic hazards and seismic events than the proposed Project. While future development of the Project site would increase the potential for soil

erosion, this would only occur during construction. Agricultural operations associated with Alternative 1 would continually erode Project site soils, but not to any greater extent than currently exists. However, soil erosion would likely be greater for Alternative 1 than the proposed Project. Overall, the seismic and geologic hazards of the proposed Project would be reduced by Alternative 1.

Hazards and Hazardous Materials

Under Alternative 1, the existing single-family homes would remain and hay production would continue. Because none of the existing buildings would be removed there would not be any potential for accidental exposure to ACMs or LBPs. However, there would be the potential for agricultural workers and site occupants to be exposed to pesticides and pesticide residues during agricultural operations and pesticides could accidentally be spilled during their use or transport. These risks would be reduced by compliance with federal, state and local laws designed to eliminate or reduce the consequence of hazardous materials accidents and minimize worker safety risks from both physical and chemical hazards in the workplace, similar to the proposed Project. While hay production does not typically use large amounts of pesticides, site occupants and agricultural workers would be at greater risk for exposure to pesticides and pesticide residues than employees and visitors of the commercial and office uses proposed by the Project, given the continued production of hay on the site.

Very limited residual crude oil and Bunker C soil contamination occurs at four to 15 feet below ground surface (bgs) in the southern portion of the site. Regulatory agencies determined the contaminants were below their respective residential preliminary remediation goals (PRGs) established by the U.S. Environmental Protection Agency, indicating that the presence of these constituents in soil at the site do not pose an unacceptable risk to onsite residents. However, these agencies have noted that any changes in the present or proposed use of the site may require further site characterization and mitigation activity. Thus, while neither Alternative 1 nor the Project would be likely to expose occupants of the site to petroleum hydrocarbon contaminated soil, the proposed Project would be required to conduct an updated site characterization at the Project site. An off-site diesel fuel spill has potentially contaminated the groundwater in the Project area. The proposed Project would be required to implement a mitigation measure requiring vapor intrusion investigations; however, Alternative 1 would not. Thus, Alternative 1 could have an increased potential for vapor intrusion compared to the proposed Project, although the potential would not be increased beyond what currently exists.

Both the Project and Alternative 1 could subject people or structures to a significant risk of loss, injury, or death as a result of exposure to wildland fires. Compliance with City fire safety requirements would reduce these risks to less than significant. Nonetheless, Alternative 1 would expose fewer people and structures to wildand fire than the proposed Project.

Thus, Alternative 1 would have potentially greater risk for pesticide exposure and an increased potential for vapor intrusion compared to the proposed Project, but reduced risk for accidental exposure to ACMs or LBPs and wildland fire. Risks associated with residual crude oil and Bunker C soil contamination from offsite leaks would be the same for the Project and Alternative 1.

Hydrology and Water Quality

Water quality could be degraded with implementation of either the proposed Project or Alternative 1. The continued production of hay on the Project site that would occur under Alternative 1 could degrade water quality as a result of soil erosion or the use of pesticide, although hay production does not use many pesticides. Retaining the natural hydrology of the site would reduce the potential for runoff and help filter pollutants onsite, resulting in less than significant impacts in this regard. Under the proposed Project,

water quality could temporarily degrade during construction as a result of erosion or accidental releases of toxic materials or permanently degrade during the life of the Project from the introduction of pollutants associated with urban runoff. However, compliance with state and local policies and regulations would reduce the Project's potential to degrade water quality to less than significant. Thus, the potential for water quality degradation would be similar for both the Project and Alternative 1. Under Alternative 1 there would not be any changes to the Project site. Consequently this alternative would not result in the addition of any impervious surfaces, which would result in greater permeability and less runoff compared to the proposed Project. Therefore, Alternative 1 would have a reduced potential to result in on or offsite flooding or to exceed the capacity of existing or planned stormwater drainage systems compared to the proposed Project. Overall, the Alternative 1 would result in reduced impacts related to hydrology and water quality when compared to the proposed Project.

Noise

Given that Alternative 1 would not construct any improvements, it would not result in temporary construction noise impacts. Furthermore, it would not result in noise from mechanical equipment and loading docks that could exceed City standards for sensitive uses as the Project would. Noise generated by exiting onsite uses do not exceed City standards and would not be expected to under Alternative 1. Therefore, impacts related to noise would be reduced under Alternative 1.

Public Services, Utilities and Service Systems

Under Alternative 1, the single-family homes would remain on the Project site and active agricultural production for hay would continue and, thus, there would be no greater demand for police and fire protection services, schools and parks than currently exists. Therefore, Alternative 1 would have less of an impact than the proposed Project on these services and would reduce the Project's potentially significant impact on fire and police protection services to less than significant. There would be no need to construct additional wastewater or water infrastructure under Alternative 1. Additionally, wastewater generation and the demand for solid waste disposal would be lower under Alternative 1 than the proposed Project. Overall, the demand for utilities would be reduced under Alternative 1 when compared to the proposed Project.

Transportation/Traffic

Alternative 1 would not add new vehicle trips at study intersections and on nearby roadways and all impacts identified in Section 4.14 would be avoided. As a result, Alternative 1 would have less impact on traffic than the proposed Project.

ALTERNATIVE 2: MIXED-USE DEVELOPMENT

Description of Alternative

The Mixed-Use Development Alternative (Alternative 2) assumes the Project site would develop with a mix of high density residential, commercial and office uses consistent with the Commercial land use designation identified in the City General Plan. This alternative would require annexation of the Project site to the City; a General Plan amendment to re-designate the Project site from UR 2 to Commercial; and Prezoning the site PUD. Similar to the proposed Project, the net size of the site may be at or near 40 acres due to dedication of land for the Grant Line Road right-of-way. This alternative would allow a similar mix of land uses to develop on the Project site as envisioned by the City General Plan statistical profile. However, this alternative assumes a little less than half the land envisioned for commercial uses

(approximately 16 acres) would be developed with residential uses, since the Commercial land use designation allows appropriately scaled and designed residential development in the density ranges permitted in the Residential High (RH) designation (12.1 to 25 units per gross acre). The City General Plan statistical profile for the Project site applies a floor area ratio (FAR) of 0.3 for the commercial and office uses envisioned for the Project site. This alternative is similar to a previous development application processed for the site by the City in 1999.

Based on this, Alternative 2 would include 16 acres of residential uses at a density of 18 units per gross acre (288 multi-family units), 17 acres of commercial uses at an FAR of 0.3 (222,156 square feet) and seven acres of office uses at an FAR of 0.3 (91,476 square feet). Alternative 2 would allow multiple combinations of uses and building types, which would allow for flexibility of uses within the site. As a result, uses could be mixed in varying combinations or not mixed at all (e.g., a building could contain first floor retail with residential above, or only residential). Because this alternative represents a mixed-use development with less emphasis on commercial land use, Alternative 2 would not include the proposed freestanding freeway sign and related proposal to amend the freeway sign height and sign standards of the I-205 Corridor Specific Plan. The purpose of this alternative is to provide a comparison between the Project's impacts and those that may occur from a similar, but slightly different development scenario that would be allowed by the General Plan that includes residential development. Table 6-1 (Comparison of Alternative 2 and the Proposed Project) shows a comparison between buildout of Alternative 2 and buildout of the proposed Project.

Table 6-1
Comparison of Alternative 2 and the Proposed Project

Topic	Residential	Commercial	Office
Proposed Project	0 units	33 acres (359,300 square feet)	7 acres (106,700 square feet)
Alternative 2	16 acres (288 units)	17 acres (222,156 square feet)	7 acres (91,476 square feet)
Difference	+288 units	-137,144 square feet	-15,224 square feet

Environmental Impacts Compared to the Project

Land Use and Planning

The mix of uses under Alternative 2 would be similar to those proposed by the Project. However, Alternative 2 would allow residential uses, while the Project would not. In addition, there would be less commercial and office development under Alternative 2 compared to the Project. As such, this alternative would not be consistent with the City General Plan statistical profile or vision for the Project site. Similar to the proposed Project, this alternative could conflict with the SJMSCP resulting in a potentially significant impact. Regardless, impacts could be mitigated by the same measures identified for the Project, which would fulfill the mitigation requirements of the SJMSCP. Therefore, under Alternative 2, impacts with respect to land use would be greater than the proposed Project.

Aesthetics

Construction of Alternative 2 would result in temporary views of construction debris and construction-related activities and require temporary nighttime security lighting for construction materials similar to the Project. In addition, Alternative 2 would introduce a similar amount of new permanent sources of light and glare as the Project. All these impacts could be reduced by the same mitigation measures identified for the Project. Alternative 2 would be subject to the City's development review process, which would ensure its consistency with existing land uses in the Project area. However, unlike the Project, Alternative 2 would not create visible signage in the Project area that would be inconsistent with other freeway signage to the east of the Project site. Thus, Alternative 2 would have less of an impact on aesthetics than the proposed Project.

Agricultural Resources

The development footprint of Alternative 2 would be similar to that proposed by the Project. Therefore, Alternative 2 would result in the same significant and unavoidable impact associated with the conversion of Prime Farmland to non-agricultural use as the Project. Accordingly, Alternative 2 would also result in a significant and unavoidable cumulative impact from the loss of agricultural land within San Joaquin County and the State of California. Therefore, Alternative 2 would have the same impacts on agricultural resources as the proposed Project.

Air Quality

Alternative 2 would result in less commercial/office development than the proposed Project, although it would allow approximately 288 residential units. The reduction in commercial/office development would result in fewer vehicle trips than the proposed Project, but the addition of residential units would offset this reduction. However, because Alternative 2 would place housing next to retail and job opportunities, it has the potential to reduce vehicle trips. Therefore, air pollutant emissions during operation of Alternative 2 would slightly decrease compared to the proposed Project, but would remain significant and unavoidable like the proposed Project. Because Alternative 2 would have a similar development footprint as the Project and would result in a relatively comparable intensity/density of development, its construction impacts would be expected to be the same as those under the proposed Project and could be mitigated to less than significant with the same mitigation measures identified for the proposed Project. Like the proposed Project, Alternative 2 would exceed established thresholds for criteria pollutants, resulting in a significant and unavoidable impact due to a conflict with the applicable air quality attainment plan and a significant and unavoidable cumulative impact due increases in criteria air pollutants. Because Alternative 2 would include residential land use and the potential to reduce vehicle trips, Alternative 2 would result in slightly reduced air quality impacts compared to the proposed Project.

Greenhouse Gas Emissions

Alternative 2 would result in less GHG emissions than the proposed Project due to a reduction in vehicle trips that could be achieved by placing housing next to employment opportunities and shopping. However, Alternative 2 would need to be consistent with the City's General Plan and Sustainability Action Plan and incorporate similar GHG reduction measures and design features. Although Alternative 2 would reduce GHG emissions, it would have the same significant and unavoidable impacts. Alternative 2 would, however, result in reduced impacts associated with GHG emissions compared to the Project.

Biological Resources

Given that Alternative 2 would have the same development footprint as the proposed Project, it would result in the same impacts on biological resources as the Project. Although the proposed land uses differ slightly from the proposed Project, the entire site would nonetheless be developed. The mitigation required for the proposed Project to protect biological resources would also be required under Alternative 2. For these reasons, impacts on biological resources under Alternative 2 would be equivalent to the Project's impacts.

Cultural Resources

Alternative 2 would develop the entire Project site with a mix of residential, commercial and office uses with a development footprint that would be similar to the proposed Project. Thus, Alternative 2 could disturb or destroy potentially significant unrecorded cultural resources in a manner comparable to the proposed Project. Mitigation identified for the proposed Project to reduce this impact to less than significant would be required for Alternative 2 as well. Consequently, impacts to cultural resources associated with Alternative 2 would be equivalent to the proposed Project.

Geology and Soils

Alternative 2 would result in less commercial development than the proposed Project. However, it would allow the construction of a maximum of 288 residential units. Thus, Alternative 2 would have fewer employees compared to the Project, but unlike the Project it would have full-time residents. As a result, Alternative 2 has the potential to expose more people to potential risks associated with geologic hazards and seismic events than the proposed Project. Given that each scenario would have the same development footprint, its potential for soil erosion would be the same. Therefore, the seismic and geologic hazards of Alternative 2 would be similar to the proposed Project but the impact would be greater given that more people could be affected.

Hazards and Hazardous Materials

Alternative 2 would have less commercial development than the proposed Project, but it would allow the 288 residential units. Overall, Alternative 2 would increase the total number of people within the Project site. Thus, it would have the potential to expose more people to risks associated with hazards and hazardous materials. Nonetheless, compliance with mitigation measures identified in Section 4.10 and with federal, state and local regulations would mitigate potential hazards and hazardous materials impacts under Alternative 2. When compared to the proposed Project, Alternative 2 would have slightly greater impacts associated with hazards and hazardous materials because more people would be potentially exposed to them.

Hydrology and Water Quality

Alternative 2 would have a similar development footprint to the proposed Project. Although the proposed land uses would be slightly different, the entire site would nonetheless be developed. Consequently, its potential to degrade water quality during construction and operation would be similar to the proposed Project. Additionally, it would have a similar increase in impervious surface area and potential to result in on or offsite flooding or to exceed the capacity of existing or planned stormwater drainage systems. Like the Project, Alternative 2 would be required to comply with applicable state and local policies and regulations, and would also be required to implement the same mitigation to address hydrology and water

quality impacts as the Project. As a result, Alternative 2 would have the same impacts as the proposed Project.

Noise

Although Alternative 2 would result less commercial development than the proposed Project, residential uses would be allowed. Commercial development generates more vehicle trips than office or residential uses and placing housing near retail and job opportunities has the potential to reduce vehicle trips. Thus, Alternative 2 would have slightly decreased noise associated with traffic compared to the proposed Project. Regardless, traffic noise from either Alternative 2 or the proposed Project would not exceed established standards. During operation, noise from mechanical equipment and loading docks could exceed City standards for sensitive uses (resulting in a potentially significant impact) for Alternative 2 as it would for the proposed Project. Because Alternative 2 would include residential uses and the Project site is adjacent to I-205, this alternative could result in a potential noise impact not identified for the Project due to the proximity of a noise sensitive use near a major highway. It is anticipated that this impact could be mitigated through building design and placement. Construction activity for the Project and Alternative 2 as well as the operation of mechanical equipment under each scenario would be subject to combination of mitigation identified in Section 4.12 and compliance with City policies and regulations to reduce potential noise impacts to less than significant. Because Alternative 2 would introduce a residential land use near I-205, this alternative would have greater noise impacts than the proposed Project.

Public Services, Utilities and Service Systems

Alternative 2 would have an increased demand for public services and utilities when compared to the proposed Project because it would include residential uses. However, similar to the proposed Project, Alternative 2 would require mitigation measures to reduce potential public service and utility impacts associated with the demand increases. Thus, Alternative 2 would result in greater impacts on public services and utilities when compared to the proposed Project.

Transportation/Traffic

Although Alternative 2 would result in less commercial use than the proposed Project, it would allow approximately 288 residential units. The reduced amount of commercial use would result in fewer vehicle trips than the proposed Project, but the addition of residential units would offset these reductions. However, because Alternative 2 would place housing next to retail and job opportunities, it has the potential to reduce vehicle trips. Regardless, because Alternative 2 would have a similar development footprint as the Project and would result in a relatively comparable intensity/density of development, the vehicle trips associated with Alternative 2 would result in similar potentially significant, but mitigable impacts as the proposed Project, and similar mitigation would reduce the impacts to less than significant. Therefore, Alternative 2 would have equivalent traffic impacts compared to the proposed Project.

ALTERNATIVE 3: INDUSTRIAL DEVELOPMENT

Description of Alternative

The Industrial Development Alternative (Alternative 3) assumes that the Project site would be developed with industrial uses such as warehouse, distribution and mini storage. This alternative would require annexation of the Project site to the City; a General Plan amendment to re-designate the Project site from UR 2 to Industrial; an amendment to the I-205 Corridor Specific Plan to add the Project site to the

Specific Plan and designate it Light Industrial; and Prezoning the site PUD. Alternative 3 would not include the proposed freestanding freeway sign and related proposal to amend the freeway sign height and sign standards of the I-205 Corridor Specific Plan. The purpose of this alternative is to provide a comparison between the Project's impacts with those that may occur from other potentially lower impact uses allowed on the site by the I-205 Corridor Specific Plan. Similar to the proposed Project and Alternative 2, the net size of the site may be at or near 40 acres due to dedication of land for the Grant Line Road right-of-way. Under this alternative, 33 acres of the site would develop with warehouse and distribution uses and the remaining seven acres with mini storage. Based on the I-205 Corridor Specific Plan's FAR of up to 0.5 for warehouse/distribution uses (and applying this same maximum FAR to mini storage uses), 33 acres of warehouse/distribution could accommodate a maximum of 718,740 square feet of floor area and seven acres of mini storage could include up to 152,460 square feet. Table 6-2 (Comparison of Alternative 3 and the Proposed Project) shows a comparison between buildout of Alternative 3 and buildout of the proposed Project.

Table 6-2
Comparison of Alternative 3 and the Proposed Project

Topic	Warehouse/ Distribution	Mini Storage	Commercial	Office
Proposed Project	0 acres	0 acres	33 acres (359,300 square feet)	7 acres (106,700 square feet)
Alternative 3	33 acres (718,740 square feet)	7acres (152,460 square feet)	0 acres (0 square feet)	0 acres (0 square feet)
Difference	+718,740 square feet	+152,460 square feet	-359,300 square feet	-106,700 square feet

Environmental Impacts Compared to the Project

Land Use and Planning

The mix of uses proposed under Alternative 3 would be different than those proposed by the Project and envisioned for the site by the City General Plan. Thus, this alternative would not be consistent with the City General Plan statistical profile or vision for the Project site. Similar to the proposed Project, this alternative could conflict with the SJMSCP resulting in a potentially significant impact. Regardless, impacts could be mitigated by the same measures identified for the Project, which would fulfill the mitigation requirements of the SJMSCP. Therefore, Alternative 3 would result in greater land use impacts than the proposed Project because it would be inconsistent with the General Plan vision for the site.

Aesthetics

As with the proposed Project, construction of Alternative 3 would result in temporary views of construction debris and construction-related activities and require temporary nighttime security lighting for construction materials. Additionally, Alternative 3 would introduce a similar amount of new permanent sources of light and glare as the Project. However, all these impacts could be reduced to less than significant by the same mitigation measures identified for the Project. In addition, Alternative 3 would be subject to the standards and regulations required by the I-205 Corridor Specific Plan and the City's development review process, which would ensure its consistency with existing land uses in the Project area. However, unlike the Project, Alternative 3 would not create visible signage in the Project

area that would be inconsistent with other freeway signage to the east of the Project site. Thus, Alternative 3 would have a reduced impact on aesthetics compared to the proposed Project.

Agricultural Resources

Like the proposed Project, Alternative 3 would develop the entire site, resulting in a significant and unavoidable impact from the conversion of approximately 43 acres of land designated as Prime Farmland to non-agricultural use. Alternative 3 would also contribute to a significant and unavoidable cumulative impact due to the loss of agricultural land within San Joaquin County and the state. Therefore, compared to the Project, Alternative 3 would have the same impacts on agricultural resources.

Air Quality

Under Alternative 3, the Project site would develop with industrial uses such as warehouse, distribution and mini storage, as opposed to the commercial and office uses that would develop under the proposed Project. The industrial uses allowed under Alternative 3 would result in fewer vehicle trips than the proposed Project, although the decrease would not be substantial. Therefore, impacts associated with air pollutant emissions during operation of Alternative 3 would slightly decrease compared to the proposed Project, but would remain significant and unavoidable. Alternative 3 would have a similar development footprint as the Project; however, it would result in greater development intensity in terms of building square footage. Consequently the construction impacts associated with Alternative 3 would be slightly greater than those under the proposed Project, but nonetheless could be mitigated to less than significant with the same mitigation measures identified for the Project. Like the proposed Project, Alternative 3 would exceed established thresholds for criteria pollutants, resulting in a significant and unavoidable impact due to a conflict with the applicable air quality attainment plan and a significant and unavoidable cumulative impact due to increases in criteria air pollutants. Therefore, some air quality impacts would be reduced compared to the proposed Project and some would be greater.

Biological Resources

Both Alternative 3 and the proposed Project would have the same development footprint, resulting in the same impacts on biological resources. The mitigation required for the proposed Project to reduce impacts to biological resources to less than significant would also be required under Alternative 3. For these reasons, Alternative 3 would have the same impacts when compared to the proposed Project.

Greenhouse Gas Emissions

Alternative 3 would produce less GHG emissions than the proposed Project as it would have fewer vehicle trips and less heating and electricity needs overall. However, it would nonetheless need to be consistent with the City's General Plan and Sustainability Action Plan and incorporate similar GHG reduction measures and design features. Although Alternative 3 would reduce GHG emissions, it would have the same significant and unavoidable impacts. Alternative 3 would, however, result in reduced impacts associated with GHG emissions compared to the Project.

Cultural Resources

Although the proposed land uses differ from the proposed Project under Alternative 3, the entire site would nonetheless be developed. Potential impacts on cultural resources would be the same regardless of whether the site is developed with commercial/office or industrial uses. Thus, Alternative 3 could disturb or destroy potentially significant unrecorded cultural resources in a manner comparable to the proposed

Project and would require the same mitigation to reduce this impact to less than significant. The cultural resource impacts of Alternative 3 would be the same as those under the proposed Project.

Geology and Soils

Alternative 3 has the potential to expose less people to potential risks associated with geologic hazards and seismic events than the proposed Project. Given that each scenario would have the same development footprint, its potential for soil erosion would be the same. However, regardless of land use and the amount of people on the site, the Project site is subject to the same seismic and geologic hazards under each scenario and would be required to implement the same mitigation measures. Nonetheless, the seismic and geologic hazards of Alternative 3 would be reduced compared to the Project, given that it would expose fewer people to these risks than the proposed Project.

Hazards and Hazardous Materials

Overall, Alternative 3 would reduce the number of people within the Project site, which would reduce risks associated with hazards and hazardous materials compared to the Project. Regardless, Alternative 3 would be required to comply with mitigation measures identified in Section 4.10 and with federal, state and local regulations to mitigate potential hazards and hazardous materials impacts to less than significant. Therefore, Alternative 3 would have reduced impacts associated with hazards and hazardous materials.

Hydrology and Water Quality

Under Alternative 3, the development footprint would be similar to the proposed Project and the potential to degrade water quality during construction and operation would be similar to the proposed Project. Although Alternative 3 would allow more building square footage, which would increase impervious surface area slightly compared to the Project, it would still have a similar potential to result in on or offsite flooding or to exceed the capacity of existing or planned stormwater drainage systems. Like the project, Alternative 3 would be required to comply with applicable state and local policies and regulations, and would also be required to implement the same mitigation to address hydrology and water quality impacts as the Project. As a result, Alternative 3 would have a slightly greater impact than the proposed Project.

Noise

The industrial uses proposed by Alternative 3 would generate fewer vehicle trips than commercial and office development proposed by the Project decreasing the amount of noise generated by Alternative 3. As a result, traffic noise from Alternative 3 would not exceed established standards similar to the proposed Project. Construction activity as well as the operation of mechanical equipment under each scenario would be subject to combination of mitigation identified in Section 4.12 and compliance with City policies and regulations to reduce potential noise impacts to less than significant. Given that industrial uses are allowed to generate 10dBA more than commercial uses, Alternative 3 would have the potential to generate greater noise levels than the proposed Project. Therefore, Alternative 3 would result in greater noise impacts.

Public Services, Utilities and Service Systems

Alternative 3 would have a decreased demand for public services and utilities when compared to the proposed Project. However, similar to the proposed Project, Alternative 3 would require mitigation

measures to reduce potential public service and utility impacts associated with the demand increases. Thus, Alternative 3 would result in reduced impacts on public services and utilities when compared to the proposed Project.

Transportation/Traffic

The industrial uses proposed by Alternative 3 would result in fewer vehicle trips than the proposed Project, although the decrease would not be substantial. Regardless, the vehicle trips associated with Alternative 3 would result in similar potentially significant, but mitigable impacts as the proposed Project, and similar mitigation would reduce the impacts to less than significant. Therefore, Alternative 3 would have equivalent traffic impacts compared to the proposed Project.

6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 6-3 (Comparison of Alternative Project Impacts to the Proposed Project) presents a comparison of the impacts associated with the alternatives with those of the proposed Project for each of the environmental resource areas analyzed above.

Table 6-3
Comparison of Alternative Project Impacts to the Proposed Project

Topic	Alternative 1 No Project/ No Build (Status Quo)	Alternative 2 Mixed-Use Development	Alternative 3 Industrial Development
Land Use and Planning	+/–	+	+
Aesthetics	–	–	–
Agricultural Resources	–	NC	NC
Air Quality	–	–	+/–
Biological Resources	–	NC	NC
Cultural Resources	–	NC	NC
Geology and Soils	–	+	–
Greenhouse Gas Emissions	–	–	–
Hazards and Hazardous Materials	+/–	+	–
Hydrology and Water Quality	–	NC	+
Noise	–	+	+
Public Services, Utilities and Service Systems	–	+	–
Transportation/Traffic	–	NC	NC

Notes:
+ Greater impact than that of the proposed Project
- Decreased impact from that of the proposed Project
+/– Greater impact with regard to some aspects of impact and decreased impact in other aspects
NC No substantial change in impact from that of the proposed Project

CEQA requires the identification of the environmentally superior alternative in an EIR, which is an alternative that would result in the fewest or least number of significant environmental impacts. If the "No

Project" Alternative is the environmentally superior alternative, *CEQA Guidelines* Section 15126.6 (e)(2) requires that another alternative that could feasibly attain most of the project's basic objectives be chosen as the environmentally superior alternative. Based on the above analysis, summarized in Table 6-3, the environmentally superior alternative is Alternative 3. Although impacts associated with land use and planning, hydrology and water quality and noise would be slightly greater, the majority of impacts would be the same or reduced compared to those identified for the proposed Project. Specifically, impacts associated with agricultural resources, biological resources, cultural resources and transportation/traffic would be equivalent under Alternative 3 and the proposed Project. However, Alternative 3 would result in reduced impacts compared to the proposed Project in the following areas: aesthetics; geology and soils; GHG emissions; hazards and hazardous materials; and public services, utilities and service systems. Some impacts associated with air quality would be reduced and some would be greater.

7.0 OTHER CEQA CONSIDERATIONS

7.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15162(b) of the California Environmental Quality Act Guidelines (*CEQA Guidelines*) requires an environmental impact report (EIR) to discuss the significant impacts of a proposed project that cannot be reduced to a less than significant level. These impacts are referred to as "significant and unavoidable impacts" of the project.

7.1.1 AGRICULTURAL RESOURCES

As described in Section 4.4 (Agricultural Resources), the proposed Project would result in the following significant and unavoidable impacts:

- 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

The Project would permanently convert approximately 43 acres of Prime Farmland to non-agricultural use. Although mitigation is included that requires future developers of the Project site to pay fees to preserve farmland elsewhere in the County and/or dedicate agricultural habitat land, there is no mitigation that could completely reduce or minimize this impact since prime agricultural soils cannot be recreated. Thus, the Project would result in a significant and unavoidable impact.

- Cumulative loss of Prime Farmland to non-agricultural use

While local and regional programs and regulations would help reduce the cumulative loss of agricultural land throughout the state, the proposed Project in combination with other development projects undertaken in agricultural areas would result in a net permanent loss of agricultural land to non-agricultural use, which would be significant and unavoidable. The proposed Project's contribution would be cumulatively considerable, as there is no way to recreate the agricultural land it would convert to non-agricultural use.

7.1.2 AIR QUALITY

As described in Section 4.5 (Air Quality), the proposed Project would result in the following significant and unavoidable impacts:

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation

Mobile source emissions generated by vehicle traffic associated with the proposed Project would exceed established SJVAPCD thresholds. Although mitigation is included that requires compliance with SJVAPCD's Rule 9510 (Indirect Source Rule [ISR]) to reduce emissions, the impact would remain significant and unavoidable.

- Conflict with or obstruct implementation of the applicable air quality plan

The proposed Project would result in significant air quality impacts and would, therefore, conflict with the applicable air quality management plan. The significant air quality impacts could contribute to a pollutant for which the area is non attainment. Despite mitigation, this impact would remain significant and unavoidable.

- 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 (including releasing emissions that exceed quantitative thresholds for ozone precursors)

Since construction emissions from future development projects within the Project area cannot be mitigated to a less than significant level, operation of those projects would exceed SJAVPCD thresholds, and the construction and operation of 466,000 square feet of commercial and office uses would have similar significant and unavoidable impacts. Thus, cumulative impacts would be considered significant and unavoidable.

The proposed Project would be consistent with the City of Tracy General Plan (City General Plan) vision for UR 2 land use designation. The City of Tracy General Plan Environmental Impact Report (General Plan EIR) analyzed the long-term development of the City and found that buildout under the City General Plan is projected to lead to substantial increases in vehicle travel and contribute to existing air quality issues in the Basin. These air quality impacts associated with increases in regional traffic are anticipated to occur after 2030, constituting a cumulatively significant impact. As a result, the proposed Project would have significant air quality impact at both the Project and the cumulative level.

7.1.3 GREENHOUSE GAS EMISSIONS

As described in Section 4.6 (Greenhouse Gas Emissions), the proposed Project would result in the following significant and unavoidable impacts:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment

Although the proposed Project would be consistent with the City's General Plan and Sustainability Action Plan and would incorporate relevant measures within the Sustainability Action Plan, Project GHG emissions would not meet SJVAPCD criteria and impacts would be significant and unavoidable.

- Generate GHG emissions that would be cumulatively considerable

Because the Project's impacts associated with GHG emissions would be significant and unavoidable, the Project's cumulative-related GHG emissions would also be significant and unavoidable.

7.2 SIGNIFICANT IRREVERSIBLE CHANGES

Section 15126.2(c) of the *CEQA Guidelines* requires an EIR to discuss the significant irreversible environmental changes that would result from implementation of a proposed project. Examples include: uses of nonrenewable resources during the initial and continued phases of the project (because a large commitment of such resources make removal or nonuse thereafter unlikely); primary or secondary impacts of the project that would generally commit future generations to similar uses (e.g., highway improvements that would provide access to a previously inaccessible area); and/or irreversible damage that could result from any potential environmental accidents associated with the project.

Implementation of the proposed Project would result in the conversion of approximately 43 acres of land designated as Prime Farmland to commercial/office uses. Development of the proposed Project would constitute a long-term commitment to commercial/office uses. It is unlikely that circumstances would arise that would justify the return of the land to its original condition as agricultural land. The loss of existing agricultural land is addressed in Section 4.4, and was determined to be a significant and unavoidable impact.

A variety of resources, including land, energy, water, construction materials and human resources would be irretrievably committed for the Project's initial construction, infrastructure installation and connection to existing utilities and its continued maintenance. Construction of the 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 maintenance and life of the proposed Project. An increase in the public use of the site would result in an increase in area traffic over existing conditions. Fossil fuels are the principal source of energy and the Project would increase consumption of available supplies, including gasoline. 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.

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9.0 REFERENCES

The following is a list of references used in the preparation of this document. Unless included in the Appendices, copies of all reference reports, memorandums and letters are on file with the City of Tracy, Development and Engineering Services Department. References to publications prepared by federal or state agencies may be found with the agency responsible for providing such information.

Arnold, R. A., J. A. Halstead, D. Kavanaugh, and K. H. Osborne, *Pages 414-415 In Thelander, C. G., and M. Crabtree, editors, Life on the Edge: A Guide to California's Endangered Natural Resources: Wildlife,* 1994.

Barbour, R. W. and W. H. Davis, *Bats of America, University of Kentucky Press, Louisville,* 1969.

Berry, W. H., J. H. Scrivner, T. P. O'Farrell, C. E. Harris, R. T. Kato, and P. M. McCue, *Sources and Rates of Mortality of the San Joaquin Kit Fox, Naval Petroleum Reserve #1, Kern County, California, 1980-1986. U. S. Dept. of Energy Topical Report, EG&G/EM Santa Barbara Operations Report No. EGG 10282-2145*, 1987.

Bloom, P. H., *The Status of the Swainson's Hawk in California, 1979,* and *Federal Aid in Wildlife Restoration, Project W-54-R-12, Final Report 11-8-0, California Department of Fish and Game, Wildlife Management Division, Nongame Bird and Mammal Section*, 1980.

Bloom, P. H and D. Van De Water, *Swainson's Hawk, Pages 150-151 In Thelander, C. G., and M. Crabtree, editors, Life on the Edge: A Guide to California's Endangered Natural Resources: Wildlife*, 1994.

Cade, T. J., and C. P. Woods, *Changes in Distribution and Abundance of the Loggerhead Shrike, Conservation Biology 11:21-31*, 1997.

California Air Pollution Control Officers Association, *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, 2008.

California Air Resources Board, *Fact Sheet, Climate Change Emission Control Regulations*, http://www.arb.ca.gov/cc/ccms/factsheets/cc_newfs.pdf, accessed on September 21, 2010.

California Department of Conservation, Division of Land Resource Protection, *California Farmland Conversion Report 2004-2006*, December 2008.

California Department of Conservation, Division of Land Resource Protection, *Williamson Act Farmland Security Zones Fact Sheet*, 2008.

California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, *Rural Mapping Edition, San Joaquin County Important Farmland 2006*, January 2009.

California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, *San Joaquin County 1990 – 2006 Land Use Summary*, January 2009.

California Department of Fish and Game, Environmental Services Division, *A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607*, 1994.

California Department of Fish and Game, *California Natural Diversity Database, Rarefind 3.1.0.* Sacramento, California.2010.

California Department of Fish and Game, *Staff report on burrowing owl mitigation,* 1995.

California Energy Commission, *Reference Appendices for the 2008 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*, revised June 2009.

California Department of Food and Agriculture, *California Agricultural Highlights 2008- 2009*, 2008-2009.

California Department of Food and Agriculture, *California Agricultural Resource Directory 2008- 2009*, 2008-2009.

California Native Plant Society (CNPS), *Inventory of Rare and Endangered Plants of California. Online edition, v7-09b. Available at: http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi*, 2009.

City of Tracy, *City of Tracy General Plan*, February 11, 2011.

City of Tracy, *City of Tracy General Plan, Amendment to the Draft Environmental Impact Report*, March 16, 2006.

City of Tracy, *City of Tracy General Plan, Draft Environmental Impact Report*, October 2005.

City of Tracy, *City of Tracy General Plan, Draft and Final Recirculated Supplemental EIR*, February 1, 2011.

City of Tracy, *Ellis Specific Plan Draft EIR*, 2008.

City of Tracy, *Holly Sugar Sports Park Draft EIR*, August 2009.

City of Tracy, *I-205 Corridor Specific Plan with Amendments*, February 1991.

City of Tracy, *Sustainability Action Plan*, February 1, 2011.

City of Tracy, Tracy Municipal Code.

City of Tracy, *Wal-Mart Expansion Draft EIR*, October 2005.

City of Tracy, *Winco Draft EIR*, October 11, 2005.

Cypher, B. L., and K. A. Spencer, *Competitive Interactions Between Coyotes and San Joaquin Kit Foxes,* J. Mamm, 79:204-214, 1998.

Cyril M. Harris, *Handbook of Noise Control*, 1979.

Dahl, T. E., *Wetland Losses in the United States, 1780's to 1980's.* U.S. Fish and Wildlife Service, Washington, D.C., 1990.

Dennis, B., *Allee Effects: Population Growth, Critical Density, and the Chance of Extinction.* Natural Resource Modeling 3:481-538, 1989.

DeSante, D. F., Ruhlen, E. D., and Scalf, R., *The Distribution and Relative Abundance of Burrowing Owls in California During 1991–1993: Evidence for a Declining Population and Thoughts on its Conservation, in Proceedings of the California Burrowing Owl Symposium, November 2003 (J. H. Barclay, K. W. Hunting, J. L. Lincer, J. Linthicum, and T. A. Roberts, eds.), pp. 1–41, Bird Populations Monogr. 1*, The Institute for Bird Populations and Albion Environmental, Inc., 2007.

Dunk, J. R., *White-Tailed Kite (Elanus leucurus). In The Birds of North America Online (A. Poole, Ed.).* Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell.edu/bna/species/178, 1995.

Dunk, J. R. and R. J. Cooper, *Territory-size Regulation in Black-Shouldered Kites.* Auk 111(3): 588-595, 1994.

Erichsen, E. L., S. K. Smallwood, A. M. Commandatore, B. W. Wilson, and M. D. Fry. *White-Tailed Kite Movement and Nesting Patterns in an Agricultural Landscape, In Raptors in Human Landscapes*, 1996.

Estep, J. A., *Biology, Movements and Habitat Relationships of the Swainson's Hawk in the Central Valley of California, 1986-1987*, California Department of Fish and Game, Wildlife Management Division, Nongame Bird and Mammal Section, 1989.

Environmental Laboratory, *U.S. Corps of Engineers Wetlands Delineation Manual,* Department of the Army, 1987.

Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054),* January 2006.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines,* May 2006.

Fowler, C. W., and J. D. Baker, *A Review of Animal Population Dynamics at Extremely Reduced Population Levels*, Report of the International Whaling Commission 41:545-554, 1991.

Gilpin, M. E., and M. E. Soule, *Minimum Viable Populations: Processes of Species Extinction*, pages 19-34 in M. E. Soule, editor, Conservation biology: the Science of Scarcity and Diversity, 1986.

Golightly, R. T. and R. D. Ohmart, *Water Economy of 2 Desert Canids: Coyote and Kit Fox*, J. Mamm, 65:51-58, 1984.

Gorman, L., R., D. K. Rosenberg, N. A. Ronan, K. L. Haley, J. A. Gervais, and V. Franke, *Estimation of Reproductive Rates of Burrowing Owls*, J. Wildl. Manage, 67:493-500, 2003.

Grinnell, J., J. S. Dixon, and J. M. Linsdale, *Furbearing Mammals of California: Their Natural History, Systematic Stats, and Relations to Man*, University of California Press, 1937.

Governor's Office of Planning and Research (OPR), *CEQA AND CLIMATE CHANGE: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, June 19, 2008.

Hickman, J. C. editor, *The Jepson Manual: Higher Plants of California*, 1993.

Humple, D., *Loggerhead Shrike (Lanius ludovicianus) (mainland populations)*, in W. D. Shuford, and T. Gardali, editors, *California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California*, Western Field Ornithologists and California Department of Fish and Game, Camarillo and Sacramento, California, 2008.

Humphrey, S. R., and T. H. Kunz, *Ecology of a Pleistocene Relict, the Western Big-Eared Bat (Plecotus townsendii) in the Southern Great Plains*, Journal of Mammalogy, 57:470-494, 1976.

Jennings, M. R., *Masticophis lateralis,* Catalogue of American Amphibians and Reptiles, 343.1-343.2, 1983.

Jennings, M. R., *Natural History and Decline of Native Ranids in California*, pages 61-72 In: H. F. De Lisle, P. R. Brown, B. Kaufman, and B. McGurty (editors), Proceedings of the Conference On California Herpetology, Southwestern Herpetologists Society, Special Publication, (4):1-143, 1988.

Jennings, M. R., and M. P. Hayes, *Amphibian and Reptile Species of Special Concern in California*, California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California, 1994.

Johnston, D. S., *Foraging Flexibility of the Pallid Bat (Antrozous pallidus)*, Ph.D. Dissertation, 1997.

Kunz, T. H., and R. A. Martin, *Plecotus townsendii,* Mammalian Species 175:1-6, 1982.

Morey, S. *Tiger Salamander*, Pages 2-3. In: D. C. Zeiner, W. F. Laudenslayer, K. E. Mayer, and M. White eds. California's Wildlife Volume 1, Amphibians and Reptiles, State of California, The Resources Agency California Fish and Game, Sacramento, CA, 1988.

Morrell, S., *Life history of the San Joaquin Kit Fox (Vulpes macrotis mutica)*, California Fish and Game Bull. 58:162-174, 1972.

Morrell, S., *San Joaquin Kit Fox Distribution and Abundance in 1975*, Administrative Report 75-3, California Department of Fish and Game, Sacramento, CA, 1975.

O'Farrell, T. P., T. Kato, P. McCue, and M. S. Sauls, *Inventory of the San Joaquin Kit Fox on BLM Lands in Southern and Southwestern San Joaquin Valley*, Final Report, ECC 1183-2400, EG&C, Santa Barbara Operations, U.S. Department of Energy, Goleta, CA.1980.

O'Farrell, T. P. and P. McCue, *Inventory of the San Joaquin Kit Fox on BLM Lands in Western San Joaquin Valley*, Final Report, ECC 1183-2416, EG&C, Santa Barbara Operations, U.S. Department of Energy, Goleta, CA, 1981.

Orloff, S., F. Hall, and L. Spiegel, *Distribution and Habitat Requirements of the San Joaquin kit fox in the Northern Extreme of their Range,* Trans. West Sect. Wildl. Soc. 22:60-70, 1986.

Peak & Associates, Inc., *Cultural Resource Assessment of the Filios/Dobler Annexation, Tracy, San Joaquin County, California*, December 2010.

Pearson, O. P., M. R. Koford, and A. K. Pearson, *Reproduction of the Lump-Nosed at (Corynorhinus rafinesquei) in California*, Journal of Mammalogy 33:273-320, 1952.

Pierson, E. D., W. E. Rainey, and C. Corben, *Distribution and Status of Western Red Bats (Lasiurus blossevillii) in California*, California Department of Fish and Game, Habitat Conservation Branch, Species Conservation and Recovery Program Report 2006-04, Sacramento, CA, 2006.

Polite, C., *Black-shouldered Kite Elanus caeruleus*, In California's Wildlife, Vol II: Birds. D. C. Zeiner, W. F. Laudenslayer Jr, K.E. Mayer, and M. White, California Department of Fish and Game, California Statewide Wildlife Habitat Relationships System, pp. 120-121, 1990.

Ralls, K., P. J. White, J. Cochran, and D. B. Siniff, *Kit Fox-Coyote Relationships in the Carrizo Plain Natural Area*, Annual report to the U. S. Fish and Wildlife Service, Sacramento, CA, 1990.

RBF Consulting, *Existing Hazardous Materials Conditions Assessment (EHMCA)*, November 2, 2010.

RBF Consulting, Site Visit, August 11, 2010.

Rosier, J. R., N. A. Ronan, and D. K. Rosenberg, *Post-Breeding Dispersal of Burrowing Owls in an Extensive California Grassland*, American Midland Naturalist 155:162-167, 2006.

San Joaquin County, *San Joaquin County General Plan 2010*, July 29, 1992.

San Joaquin County, Zoning Ordinance

San Joaquin County, San Joaquin County District Viewer, http://www.sjgov.org/commdev/cgi-bin/cdyn.exe, accessed September 14, 2010.

San Joaquin County Council of Governments, *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)*, November 14, 2000.

San Joaquin Valley Air Pollution Control District, *2007 Ozone Plan*, *2007 PM_{10} Plan,* 2007.

San Joaquin Valley Air Pollution Control District, *Final Staff Report Addressing Greenhouse Gas Emissions Impacts Under the California Environmental Quality Act*, December 17, 2009.

San Joaquin Valley Air Pollution Control District, *Guidance for Valley Land-Use Agencies in Addressing GHG Emissions Impacts for New Projects Under CEQA*, December 17, 2009.

San Joaquin Valley Air Pollution Control District, *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI), 2002.

San Joaquin Valley Air Pollution Control District, *GHG Emission Reduction Measures for Development Projects, Interim GHG Emissions Reductions Calculator,* December 17, 2009.

Scrivner, J. H., T. P. O'Farrell, T. T. Kato, and M. K. Johnson, *Dispersal of San Joaquin Kit Foxes, Vulpes macrotis mutica, on Naval Petroleum Reserve #1, Kern County, California*, 1980-184. Rep. No. EGG 10282-2168, EG&G Energy Measurements, Goleta, CA, 32 pp., 1987.

Skonieczny, M. F. and J. R. Dunk. 1997. *Hunting Synchrony in White-tailed Kites*. J. Raptor Res. 31(1): 79-81.

State of California Department of Transportation, *California Scenic Highway Mapping System*, http://www.dot. ca.gov/hq/LandArch/scenic_ highways/, accessed on January 12, 2011.

Stebbins, R. C., *Amphibians and Reptiles of Western North America*, 1954.

Storer, T. I., *A Synopsis of the Amphibia of California*, University of California Publications in Zoology 27: 1-342, 1925.

Trulio, L. A., *Passive Relocation: A Method to Preserve Burrowing Owls on Disturbed Sites*, Journal of Field Ornithology 66:99-106, 1995.

U.S. Army Corps of Engineers, *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region,* U.S. Army Engineer Research and Development Center, 2006.

U.S. Department of Agriculture, National Agricultural Statistics Service, California Field Office, *California Agricultural Statistics 2008 Crop Year*, March 2010.

U.S. Department of Agriculture, National Agricultural Statistics Service, California Field Office, *Summary of California County Agricultural Commissioners' Reports, 2007-2008*, October 15, 2009.

U.S. Environmental Protection Agency, *Class I Ozone Depleting Substances*, August 19, 2010.

U.S. Environmental Protection Agency, *High GWP Gases and Climate Change*, http://www.epa.gov/highgwp/scientific.html, 2002.

U.S. Environmental Protection Agency, *Inventory of United States Greenhouse Gas Emissions and Sinks 1990 to 2004*, April 2006.

U.S. Environmental Protection Agency, http://www.epa.gov/otaq/climate/ca-waiver.htm, accessed on September 21, 2010.

U.S. Fish and Wildlife Service, *Native Fish and Wildlife, Endangered Species*, Federal Register 32:4001, 1967.

U.S. Fish and Wildlife Service, *Recovery Plan for Upland Species of the San Joaquin Valley, California*, Region 1, Portland, OR, 1998.

U.S. Fish and Wildlife Service, *San Joaquin Kit Fox survey Protocol for the Northern Range*, Sacramento Fish and Wildlife Office, June 1999.

U.S. Fish and Wildlife Service, *Recovery Plan for the California Red-legged Frog (Rana aurora draytonii)*, U.S. Fish and Wildlife Service, Portland, Oregon, viii + 173 pp., 2002.

Vaughan, T. A., *Mammals of the San Gabriel Mountains of California*, University of Kansas Publications Museum of Natural History 7(9):513-582, 1954.

Western Bat Working Group, *Lasiurus blossevillii, Western Red Bat,* Western Bat Working Group Species Accounts. http://www.wbwg.org/speciesinfo/species_accounts/vespertilonidae/labl.pdf, 2005.

White, P. J., R. A. Garrott, *Factors regulating Kit Fox Populations*, Canadian Journal of Zoology 75:1982-1988, 1997.

Williams, D. F., *The Mammalian Species of Special Concern in California*, California Department of Fish and Game, Sacramento, CA, 1986.

Wilson, D. E., and S. Ruff, *Smithsonian Book of North American Mammals*, Washington D.C.: Smithsonian Institution Press, 1999.

Yosef, R., *Loggerhead shrike*, A. Poole, and F. Gill, editors, *The Birds of North America*, 1996.

Zeiner, D. C., W. F. Laudenslayer, K. E. Mayer, and M. White, *California's Wildlife, Volume III: Mammals*, California Department of Fish and Game, Sacramento, California, 1990.

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