

NOTICE OF A REGULAR MEETING

Pursuant to Section 54954.2 of the Government Code of the State of California, a Regular meeting of the City of Tracy Planning Commission is hereby called for:

Date/Time: Wednesday, June 10, 2020
7:00 P.M. (or as soon thereafter as possible)

Location: City Hall
333 Civic Center Plaza, Tracy

Government Code Section 54954.3 states that every public meeting shall provide an opportunity for the public to address the Planning Commission on any item, before or during consideration of the item, however no action shall be taken on any item not on the agenda.

THIS REGULAR MEETING WILL BE CONDUCTED PURSUANT TO THE PROVISIONS OF THE GOVERNOR'S EXECUTIVE ORDER N-29-20 WHICH SUSPENDS CERTAIN REQUIREMENTS OF THE RALPH M. BROWN ACT

RESIDENTS ARE STRONGLY ENCOURAGED TO PARTICIPATE REMOTELY AT THE JUNE 10, 2020 MEETING

Remote Access to City of Tracy Planning Commission Meeting:

In accordance with the guidelines provided in Executive Order N-29-20 on social distancing measures, the City of Tracy will allow for remote participation at the upcoming Planning Commission meeting on Wednesday, June 10, 2020.

Remote Public Comment:

Public comment via email will only be accepted for agendized items before the start of the Planning Commission meeting at 7:00 p.m. Please send an email to publiccomment@cityoftracy.org. Identify the item you wish to comment on in your email's subject line

During the upcoming Planning Commission meeting public comment will be accepted via the options listed below. If you would like to comment remotely, please follow the protocols below:

- *Comments via:*
 - **Phone** by dialing (209) 831-6010, or
 - **Online by visiting** <https://cityoftracyevents.webex.com> and using the following **Event Number:** 126 421 2728 and **Event Password:** Planning
 - ***If you would like to participate in the public comment anonymously***, you may submit your comment via phone or in WebEx by typing "Anonymous" when prompted to provide a First and Last Name and inserting Anonymous@example.com when prompted to provide an email address.

- *Protocols for submitting comments by **phone**:*
 - *Identify the item you wish to comment on to staff when calling in. Comments received by phone will be accepted for the “Items from the Audience/Public Comment” and “New Business” portions of the agenda.*
 - *Comments received by phone for the “Items from the Audience/Public Comment” portion of the agenda must be received by the time the Chairperson opens that portion of the agenda for discussion.*
 - *Comments received by phone on each “New Business” will be accepted until the Chairperson announces that public comment for that item is closed.*

- *Protocols for commenting via WebEx:*
 - *If you wish to comment on the “Items from the Audience/Public Comment” or “New Business” portions of the agenda:*
 - *Listen for the Chairperson to open that portion of the agenda for discussion, then raise your hand to speak by clicking on the Hand icon on the Participants panel to the right of your screen.*
 - *If you no longer wish to comment, you may lower your hand by clicking on the Hand icon again.*
 - *Comments for the “Items from the Agenda/Public Comment” or “New Business” portions of the agenda will be accepted until the public comment for that item is closed.*

- *The total allotted time for public comment will be as follows:*
 - *Items from the Audience: **15 minutes***
 - *New Business: **10 minutes***

Comments received by publiccomment@cityoftracy.org, phone call, or on Webex outside of the comment periods outlined above will not be included in the record.

REGULAR MEETING AGENDA

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL

MINUTES – 3/11/20

DIRECTOR’S REPORT REGARDING THIS AGENDA

ITEMS FROM THE AUDIENCE - *In accordance with Council Meeting Protocols and Rules of Procedure, adopted by Resolution 2019-240, a five-minute maximum time limit per speaker will apply to all individuals speaking during “Items from the Audience/Public Comment”. For non-agendized items, Planning Commissioners may briefly respond to statements made or questions posed by individuals during public comment; ask questions for clarification; direct the individual to the appropriate staff member; or request that the matter be placed on a future agenda or that staff provide additional information to the Planning Commission.*

1. NEW BUSINESS.

- A. PUBLIC HEARING TO CONSIDER AN AMENDMENT TO THE TRACY HILLS SPECIFIC PLAN REGARDING HOUSES WITH THREE-CAR GARAGES. THE APPLICANT IS JOHN PALMER. APPLICATION NUMBER SPA20-0002

- B. PUBLIC HEARING TO CONSIDER AN APPLICATION FOR AN EXTENSION OF THE TRACY VILLAGE VESTING TENTATIVE SUBDIVISION MAP FOR 590 LOTS TO MAY 15, 2022. THE PROJECT IS LOCATED AT THE SOUTHEAST CORNER OF CORRAL HOLLOW AND VALPICO ROADS, ASSESSOR'S PARCEL NUMBERS 244-030-01, 244-030-02, AND 240-040-01. THE APPLICANT AND PROPERTY OWNERS ARE JC TRACY GROUP, LLC AND PONDEROSA HOMES. APPLICATION NUMBER EXT20-0001.

- C. PUBLIC HEARING TO CONSIDER APPLICATIONS FOR REZONING THE APPROXIMATELY 10.92-ACRE SITE LOCATED AT THE SOUTHEAST CORNER OF CORRAL HOLLOW ROAD AND MIDDLEFIELD DRIVE, ASSESSOR'S PARCEL NUMBER 244-020-31, FROM PUD TO NS AND FOR A CONDITIONAL USE PERMIT AND DEVELOPMENT REVIEW PERMIT FOR AN AUTOMOTIVE SERVICE STATION, ELECTRIC VEHICLE CHARTING STATION, AND CONVENIENCE STORE. APPLICANT IS SCHACK AND COMPANY AND PROPERTY OWNERS ARE HARPREET SINGH & VARINDER PAL SINGH - APPLICATION NUMBERS R19-0001, CUP19-0013, AND D19-0031

2. ITEMS FROM THE AUDIENCE

3. DIRECTOR'S REPORT

4. ITEMS FROM THE COMMISSION

5. ADJOURNMENT

Posted: June 4, 2020

The City of Tracy complies with the Americans with Disabilities Act and makes all reasonable accommodations for the disabled to participate in public meetings. Persons requiring assistance or auxiliary aids in order to participate should call City Hall (209-831-6000) at least 24 hours prior to the meeting.

Any materials distributed to the majority of the Planning Commission regarding any item on this agenda will be made available for public inspection via the City of Tracy website at www.cityoftracy.org.

**MINUTES
TRACY CITY PLANNING COMMISSION
MARCH 11, 2020, 7:00 P.M.
CITY OF TRACY COUNCIL CHAMBERS
333 CIVIC CENTER PLAZA**

CALL TO ORDER

Chair Orcutt called the meeting to order at 7:00 p.m.

PLEDGE OF ALLEGIANCE

Chair Orcutt led the pledge of allegiance.

ROLL CALL

Roll Call found Commissioner Atwal, Commissioner Francis, Commissioner Wood, Vice Chair Hudson, and Chair Orcutt present. Also present were: Bianca Rodriguez, Deputy City Attorney; Bill Dean, Assistant Development Services Director; Al Gali, Associate Civil Engineer; Genevieve Federighi, Associate Planner; and Gina Peace, Recording Secretary.

MINUTES

Chair Orcutt introduced the Minutes from the February 26, 2020 meeting.

ACTION It was moved by Chair Orcutt and seconded by Vice Chair Hudson to approve the Planning Commission meeting minutes of February 26, 2020.
A voice vote found all in favor, passed and so ordered; 5-0-0-0.

DIRECTOR'S REPORT REGARDING THIS AGENDA

None.

ITEMS FROM THE AUDIENCE

None.

1. NEW BUSINESS

1. **PUBLIC HEARING TO CONSIDER A PLANNED UNIT DEVELOPMENT AMENDMENT (APPLICATION NUMBER PUD18-0004) AND DEVELOPMENT REVIEW (APPLICATION NUMBER D18-0033) FOR A FOUR-STORY, 87-ROOM, LA QUINTA HOTEL ON A 1.91-ACRE PARCEL LOCATED ON CLOVER ROAD, APPROXIMATELY 500 FEET EAST OF TRACY BOULEVARD (APN: 214-210-05)**

Genevieve Federighi, Associate Planner, delivered the staff report.

Chair Orcutt opened the Public Hearing at 7:11 p.m.

Jaspal Sidhu, architect on the Project, answered questions from the Commission.

Ray Patel, 861 W. Clover Road (Microtel Hotel), addressed the Commission, in opposition of the Project, for various reasons, including traffic, homelessness in the area, and poor road conditions.

Robert Tanner, 1371 Rusher Street, addressed the Commission, with traffic questions.

Sara Bai, 8609 W. Ranch Road, Tracy High School graduate, addressed the Commission, with questions. Mr. Sidhu addressed Ms. Bai's concerns.

Chair Orcutt closed the Public Hearing at 7:49 p.m.

ACTION It was moved by Commissioner Wood and seconded by Vice Chair Hudson to approve a Planned Unit Development Amendment (Application Number PUD18-0004) and Development Review (Application Number D18-0033) for a four-story, 87-room, La Quinta hotel on a 1.91-acre parcel located on Clover Road, approximately 500 feet east of Tracy Boulevard (APN: 214-210-05). A roll call vote found all in favor; passed and so ordered; 5-0-0-0.

2. ITEMS FROM THE AUDIENCE

None.

3. DIRECTOR'S REPORT

Assistant Director Dean commented on how refreshing it is to observe a young person taking an interest in City Planning, in reference to Ms. Bai's attendance.

4. ITEMS FROM THE COMMISSION

None.

5. ADJOURNMENT

ACTION It was moved by Chair Orcutt and seconded by Vice Chair Hudson to adjourn. A voice vote found all in favor; passed and so ordered.

Time: 7:55 p.m.

CHAIR

STAFF LIAISON

AGENDA ITEM 1.A

REQUEST

PUBLIC HEARING TO CONSIDER AN AMENDMENT TO THE TRACY HILLS SPECIFIC PLAN REGARDING HOUSES WITH THREE-CAR GARAGES. THE APPLICANT IS JOHN PALMER. APPLICATION NUMBER SPA20-0002

DISCUSSION

On April 5, 2016, City Council certified an Environmental Impact Report and approved a comprehensive update to the Tracy Hills Specific Plan. The Tracy Hills Specific Plan consists of approximately 2,732 acres located in the vicinity of the existing Corral Hollow Road interchange and the proposed Lammers Road interchange on Interstate 580.

This agenda item involves consideration of a proposed amendment to the Tracy Hills Specific Plan regarding three-car garages. On a city-wide basis, the City's Design Goals and Standards do not allow three-car garages to face the street. This restriction is intended to avoid or reduce the potential monotony and dominance of garage doors facing the street and allow for the more interesting features of the residential architecture to be on greater display and create more variety and interest in the streetscape. Three-car garages may be permitted if one of the garage bays is a side swing garage.

Prior to the current design standards, some past residential subdivisions were built with houses having three-car garages facing the street. Concerns regarding the aesthetic nature of these designs and the potential negative impacts to the streetscape resulted in the current City-wide standards.

On April 22, 2020, an application was submitted to amend the Tracy Hills Specific Plan regarding houses with three-car garages (Attachment A: Proposed Tracy Hills Specific Plan Amendment regarding three-car garages). The Tracy Hills Specific Plan is currently consistent with the City-wide standards regarding three-car garages and does not allow a house to have a three-car garage fronting to the street. However, deviation from City-wide standards is permissible if approved as part of a Specific Plan.

The proposed amendment to the Tracy Hills Specific Plan would allow houses with a front elevation width of 60 feet or greater to have a three-car garage fronting to the street. A three-car garage is approximately 30 feet wide, which would be 50% or less of a house with a front elevation width of 60 feet or greater. Staff considers this front elevation width to be sufficient for including a three-car garage fronting to the street, while not having the architecture become overly garage-dominant. Examples of 60-foot wide houses with a three-car garage are shown in Attachment B.

In general, amendments to Specific Plans are common as development occurs and implementation details become clearer. In the case of Tracy Hills, a series of additional Specific Plan Amendments will likely be submitted within the coming months as development plans for future phases are proposed.

Environmental Document

The proposed amendment to the Tracy Hills Specific Plan is not a project within the meaning of the California Environmental Quality Act because it does not have the

potential for causing a significant effect on the environment (CEQA Guidelines, 14 California Code of Regulations, §15061(b)). Therefore, no further environmental assessment is required.

RECOMMENDATION

Staff recommends that the Planning Commission recommend that the City Council approve an amendment to the Tracy Hills Specific Plan regarding houses with three-car garages, as specified in the recommended Planning Commission Resolution dated June 10, 2020 (Attachment C: Planning Commission Resolution).

RECOMMENDED MOTION

Planning Commission recommends that the City Council approve an amendment to the Tracy Hills Specific Plan regarding houses with three-car garages, as specified in the Planning Commission Resolution dated June 10, 2020.

Prepared by: Scott Claar, Senior Planner

Approved by: Bill Dean, Assistant Development Services Director

ATTACHMENTS

- A: Proposed Tracy Hills Specific Plan Amendment regarding three-car garages
- B: Examples of 60-foot wide front elevations with three-car garage
- C: Planning Commission Resolution



Tracy Hills Specific Plan

RECEIVED
June 03, 2020
City of Tracy
Development Services

Approved April 5, 2016 (Tracy Resolution 2016-063)
Amended June 18, 2019, incorporated herein (Tracy Ordinance 1270)
Draft Amendment May 28, 2020





Garages are setback and designed to complement overall design.



Variation in garage locations provides interest in the streetscape.

2. Garages

- Within a neighborhood (defined as up to 200 dwelling units) there shall be a minimum of three garage door designs provided to avoid monotony along the streetscape. Each garage door design shall be used in at least 25% of the neighborhood.
- To minimize building bulk and the focus on vehicular elements, a maximum of two car garage bays shall front to the street **on houses that have a front elevation width of less than 60 feet. For houses that have a front elevation width of 60 feet or greater, three car front loaded garages are permitted.**
- Garages shall be designed so they are not the primary focus in the streetscape and will be complementary to the rest of the home.
- Driveways shall have a maximum width of 18' **for two car garages and 30' for three car garages** (measured at property line) so that it will not negatively impact the streetscape and walkability of the neighborhood.
- **Driveway approaches shall have a maximum width of 18' for two car garages and 30' for three car garages.**



3.2.5 Residential Design Guidelines Checklist

This checklist is intended to be used as quick reference of the Residential Design Guidelines for designers, developers, builders, and City Staff.

SCALE	
Massing and Building Form	<ul style="list-style-type: none"> No building wall shall extend more than 25' vertically or horizontally without a visual break created by a 2' minimum offset or architectural detail. At least 25% of buildings within a subdivision shall have a building mass which combines single and two story forms.
Roof Forms, Materials, and Colors	<ul style="list-style-type: none"> Create a diversity of roof forms for an articulated streetscape by providing at a minimum three different roof plans per building plan. Flat roofs are not allowed. Roof materials can include concrete or clay tile or architectural grade composition shingle.
ARCHITECTURAL STREETSCAPE	
Windows	<ul style="list-style-type: none"> All windows shall have trim surrounds, headers, or sills. Buildings with the same window locations, regardless of different elevation style, shall not be located next to each other.
Garages	<ul style="list-style-type: none"> Within a neighborhood there shall be a minimum of three garage door designs provided to avoid monotony along the streetscape. Each garage door design shall be used in at least 25% of the neighborhood. A maximum of two car garage bays shall front to the street on houses that have a front elevation width of less than 60 feet. For houses that have a front elevation width of 60 feet or greater, three car front loaded garages are permitted. Driveways shall have a maximum width of 18' for two car garages and 30' for three car garages. Driveway approaches shall have a maximum width of 18' for two car garages and 30' for three car garages.
Building Materials and Colors	<ul style="list-style-type: none"> Materials and colors palette shall be comprised of three or more complementary options that cover a base color, trim color, and accent color. Material and color blocking shall not terminate at outside corners of buildings and shall wrap to appropriate transition points.
Details	<ul style="list-style-type: none"> Building details shall be consistent with the architectural style and overall building design.



Elevation A
Early California/Spanish



Elevation B
Mediterranean Revival



Elevation C
Craftsman

PLAN 1 - FRONT ELEVATIONS

**VILLAGE 6A | ELAN AT TRACY HILLS
TRACY, CALIFORNIA**



04/07/2020



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Note: Artist's conception; colors, materials and application may vary.



Elevation A
Early California/Spanish



Elevation B
Mediterranean Revival

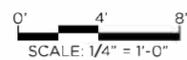


Elevation C
Craftsman

PLAN 3 - FRONT ELEVATIONS
VILLAGE 6A | ELAN AT TRACY HILLS
TRACY, CALIFORNIA



04/07/2020



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Note: Artist's conception; colors, materials and application may vary.

RESOLUTION 2020 - 006

RECOMMENDING THAT THE CITY COUNCIL APPROVE AN AMENDMENT TO THE TRACY HILLS SPECIFIC PLAN REGARDING HOUSES WITH THREE-CAR GARAGES APPLICATION NUMBER SPA20-0002

WHEREAS, On April 5, 2016, City Council certified an Environmental Impact Report and approved a comprehensive update to the Tracy Hills Specific Plan; and

WHEREAS, The Tracy Hills Specific Plan consists of approximately 2,732 acres located in the vicinity of the existing Corral Hollow Road interchange and the proposed Lammers Road interchange on Interstate 580; and

WHEREAS, On April 22, 2020, an application was submitted to amend the Tracy Hills Specific Plan regarding houses with three-car garages (Application Number SPA20-0002); and

WHEREAS, The Tracy Hills Specific Plan does not allow a house to have a three-car garage fronting to the street; and

WHEREAS, The proposed amendment would allow houses with a front elevation width of 60 feet or greater to have a three-car garage fronting to the street; and

WHEREAS, The proposed amendment to the Tracy Hills Specific Plan is not a project within the meaning of the California Environmental Quality Act because it does not have the potential for causing a significant effect on the environment (CEQA Guidelines, 14 California Code of Regulations, §15061(b)). Therefore, no further environmental assessment is required; and

WHEREAS, On June 10, 2020, the Planning Commission conducted a duly noticed public hearing to consider the proposed amendment to the Tracy Hills Specific Plan;

NOW, THEREFORE, BE IT RESOLVED, That the Planning Commission recommends that the City Council approve an amendment to the Tracy Hills Specific Plan regarding houses with three-car garages, Application Number SPA20-0002, as specified in Attachment "A" of the Planning Commission staff report dated June 10, 2020.

* * * * *

The foregoing Resolution 2020 – 006 was passed and adopted by the Planning Commission of the City of Tracy on the 10th day of June 2020, by the following vote:

AYES: COMMISSION MEMBERS:
NOES: COMMISSION MEMBERS:
ABSENT: COMMISSION MEMBERS:
ABSTAIN: COMMISSION MEMBERS:

CHAIR

ATTEST:

STAFF LIAISON

AGENDA ITEM 1.B

REQUEST

PUBLIC HEARING TO CONSIDER AN APPLICATION FOR AN EXTENSION OF THE TRACY VILLAGE VESTING TENTATIVE SUBDIVISION MAP FOR 590 LOTS TO MAY 15, 2022. THE PROJECT IS LOCATED AT THE SOUTHEAST CORNER OF CORRAL HOLLOW AND VALPICO ROADS, ASSESSOR'S PARCEL NUMBERS 244-030-01, 244-030-02, AND 240-040-01. THE APPLICANT AND PROPERTY OWNERS ARE JC TRACY GROUP, LLC AND PONDEROSA HOMES. APPLICATION NUMBER EXT20-0001.

DISCUSSION

On May 15, 2018, the City Council approved a Vesting Tentative Subdivision Map and Specific Plan for a 590 lot detached single-family subdivision (Attachment A). The subdivision is located at the southeast corner of Corral Hollow and Valpico Roads.

Pursuant to Government Code Section 66452.6(a)(1) and the Tracy Municipal Code (TMC) Sections 12.16.080 and 12.28.060, approved vesting tentative subdivision maps have an initial life of 24 months, and a final map must be filed prior to expiration to retain its vested rights. The applicant has submitted a final map and improvement plans for review, but they have not yet been approved due to the delay in annexation of the project site. The applicant is requesting a thirty-six month extension of the map approval. The Tracy Village Specific Plan approval does not have an expiration date and remains valid.

Per TMC Sections 12.16.090 and 12.28.060, the Planning Commission may grant extensions for up to three years if an extension request is filed prior to the expiration of the map. If the Planning Commission approves the applicant's request for a two year extension, the Tracy Village VTSM would have a revised expiration date of May 15, 2022.

Environmental Document

On May 15, 2018, the City of Tracy approved the Tracy Village Specific Plan. The associated EIR (SCH# #2916112016) was certified as well. The project does not propose any changes to the environment that was not analyzed in the Tracy Village Specific Plan EIR, Therefore, no further documentation is needed.

RECOMMENDATION

Staff recommends that the Planning Commission approve application number EXT20-0001 to extend the life of the vesting tentative subdivision map application number TSM17-0003 through May 15, 2022 based on the findings contained in the Planning Commission Resolution dated June 10, 2020.

PROPOSED MOTION

Move that the Planning Commission approve application number EXT20-0001 to extend the life of the vesting tentative subdivision map application number TSM17-0003 through May 15, 2022 based on the findings contained in the Planning Commission Resolution dated June 10, 2020.

ATTACHMENTS

Attachment A: Tracy Village Vesting Tentative Subdivision Map

Attachment B: Planning Commission Resolution

Prepared by: Victoria Lombardo, Senior Planner

Approved by: Bill Dean, Assistant Development Services Director

LOT AREA SUMMARY

LOT NO.	LOT AREA (SF)
1	7565
2	6782
3	5909
4	5461
5	5461
6	5460
7	5460
8	5460
9	5460
10	5459
11	5729
12	6109
13	6108
14	5337
15	4895
16	4895
17	4895
18	4895
19	4849
20	4651
21	4545
22	4545
23	4545
24	4545
25	4545
26	4545
27	4545
28	4545
29	5185
30	7394
31	4752
32	4620
33	4511
34	4500
35	4500
36	4500
37	4500
38	4500
39	4500
40	4500
41	4500
42	4500
43	5314
44	5315
45	4500
46	4500
47	4500
48	4500
49	4500
50	4500
51	4500
52	5021
53	5671
54	7615
55	8446
56	8292
57	6641
58	4864
59	4500
60	4500
61	4500
62	4500
63	4500
64	4500
65	4500
66	4500
67	7785
68	8748
69	4573
70	4500

LOT AREA SUMMARY

LOT NO.	LOT AREA (SF)
71	4500
72	4500
73	4500
74	4500
75	4500
76	4500
77	4864
78	5132
79	4700
80	4700
81	4700
82	4700
83	4700
84	4700
85	4700
86	5633
87	7048
88	7047
89	6809
90	6537
91	6536
92	6536
93	6535
94	6535
95	6535
96	6534
97	6534
98	6534
99	6576
100	6612
101	6612
102	6612
103	6247
104	6240
105	6240
106	6240
107	6240
108	6240
109	6440
110	7280
111	8371
112	6430
113	6430
114	6430
115	6430
116	6430
117	6437
118	6914
119	6500
120	6500
121	6550
122	6750
123	6750
124	6750
125	6700
126	6914
127	9496
128	9928
129	10224
130	9784
131	8776
132	7640
133	6990
134	6694
135	7054
136	6970
137	6982
138	7036
139	7026
140	6818

LOT AREA SUMMARY

LOT NO.	LOT AREA (SF)
141	6752
142	6880
143	6853
144	7262
145	7450
146	6541
147	6518
148	6600
149	7164
150	7375
151	6905
152	6800
153	6620
154	6474
155	6498
156	6500
157	6500
158	6500
159	6500
160	6522
161	6916
162	7012
163	7298
164	7422
165	7191
166	9465
167	9068
168	6852
169	6928
170	7286
171	7506
172	7122
173	7761
174	6900
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176	6746
177	7257
178	7531
179	7026
180	6935
181	8371
182	7252
183	6775
184	6751
185	6901
186	6893
187	7217
188	7431
189	7051
190	6959
191	6959
192	7019
193	7140
194	7350
195	7541
196	7193
197	6900
198	7408
199	8493
200	8515
201	8475
202	6903
203	6708
204	6708
205	7658
206	6060
207	6060
208	5991
209	5986
210	5986

LOT AREA SUMMARY

LOT NO.	LOT AREA (SF)
211	5986
212	5985
213	5985
214	5985
215	5984
216	5984
217	5984
218	5983
219	5983
220	6585
221	5985
222	5525
223	5598
224	6121
225	6192
226	6230
227	6268
228	6305
229	5924
230	5826
231	5864
232	5902
233	5939
234	5977
235	6015
236	6052
237	6090
238	6128
239	6165
240	6797
241	6414
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243	6000
244	6000
245	6000
246	6000
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248	5500
249	5500
250	5500
251	5500
252	6322
253	6450
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255	5610
256	5610
257	5610
258	5610
259	6120
260	6120
261	6120
262	6120
263	6120
264	6544
265	5614
266	5225
267	5225
268	5225
269	5225
270	5890
271	5928
272	5335
273	8160
274	7049
275	5909
276	9713
277	7701
278	7012
279	5637
280	6053

LOT AREA SUMMARY

LOT NO.	LOT AREA (SF)
281	6034
282	5610
283	5610
284	5576
285	5576
286	5610
287	5610
288	6090
289	7796
290	5500
291	6114
292	6279
293	5968
294	5656
295	5500
296	5500
297	5500
298	5500
299	8253
300	6704
301	6526
302	6526
303	6526
304	7341
305	7733
306	8555
307	9178
308	10002
309	4370
310	4697
311	7725
312	5149
313	5250
314	5251
315	5452
316	5500
317	6293
318	5571
319	4929
320	4876
321	4876
322	4876
323	4876
324	4876
325	4876
326	5426
327	4906
328	4416
329	4416
330	4416
331	4416
332	4416
333	4416
334	4416
335	4906
336	5042
337	4987
338	5017
339	5048
340	5130
341	5109
342	5139
343	5170
344	5513
345	5140
346	4775
347	4779
348	4704
349	4648
350	4651

LOT AREA SUMMARY

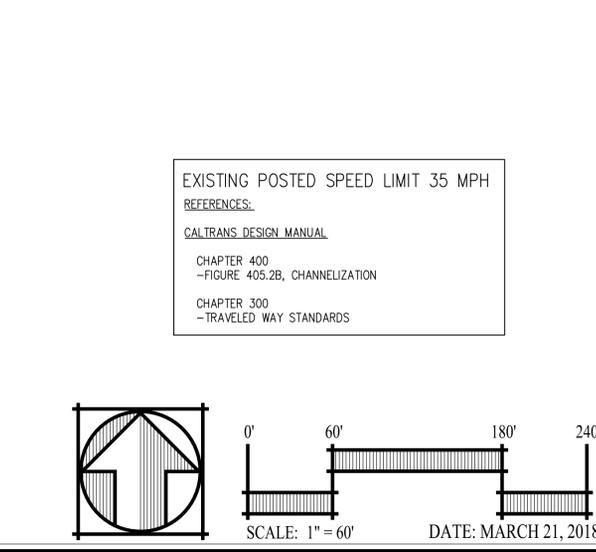
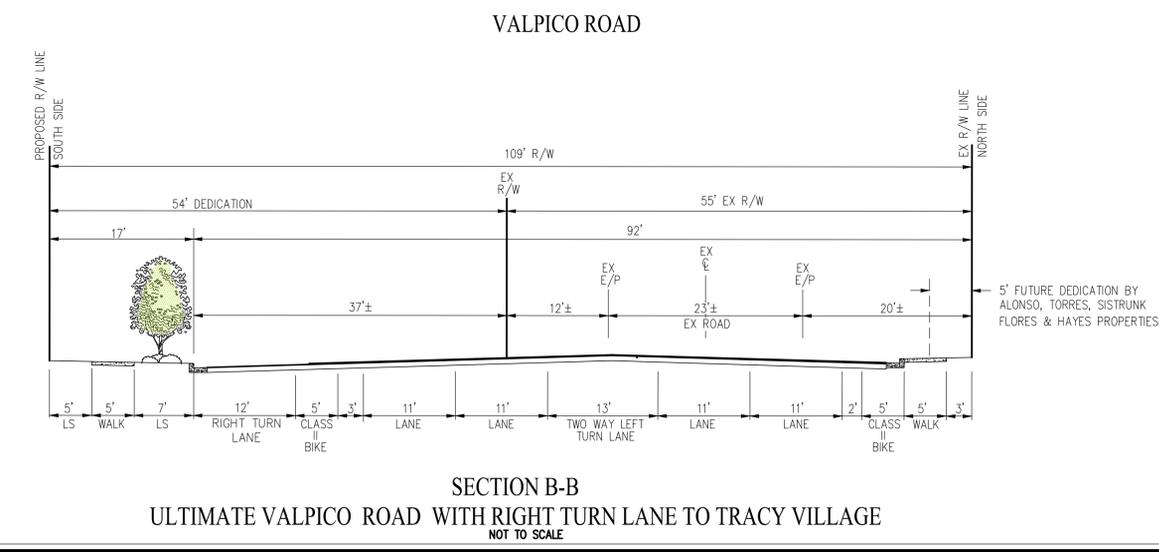
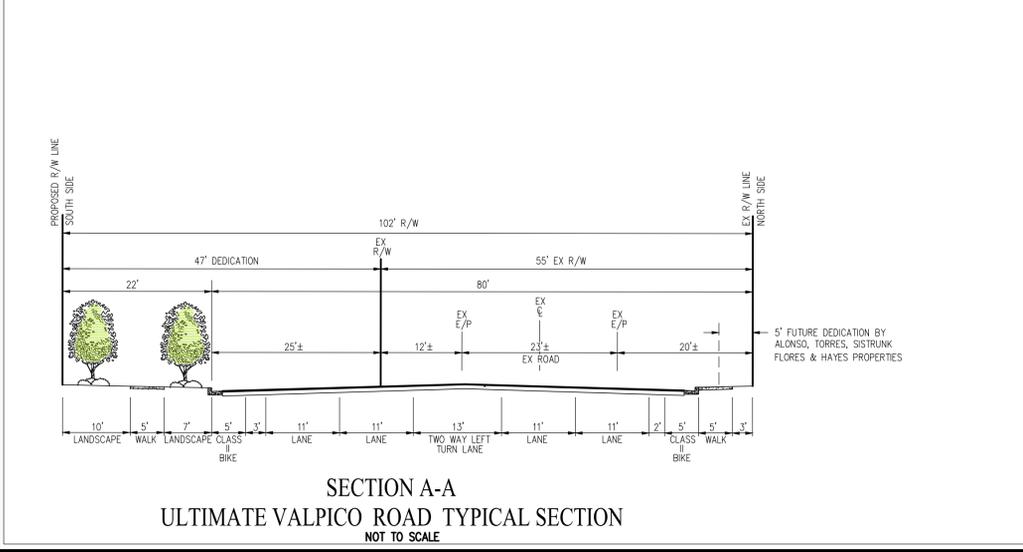
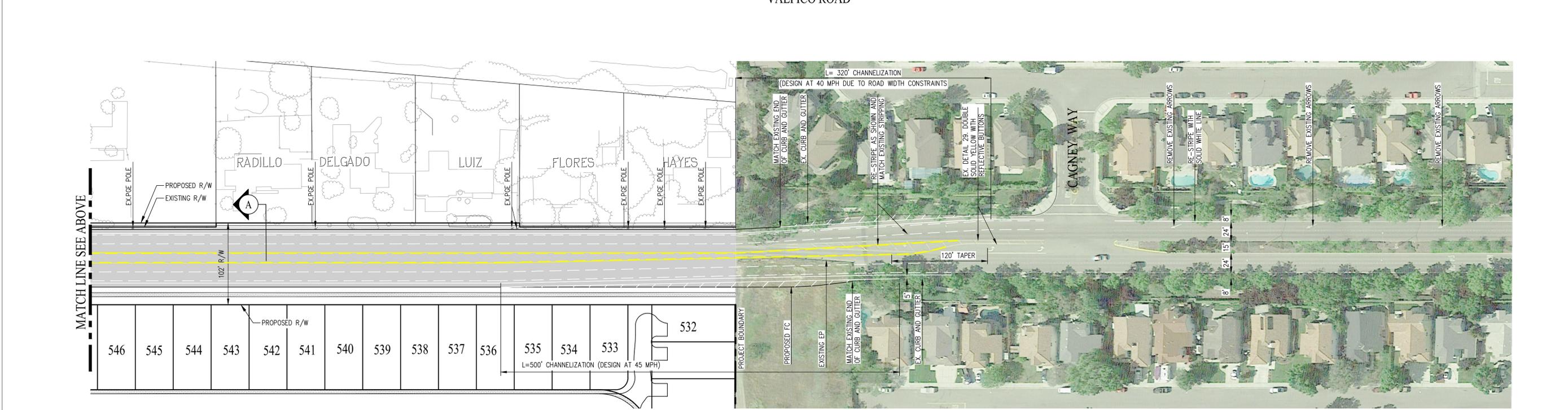
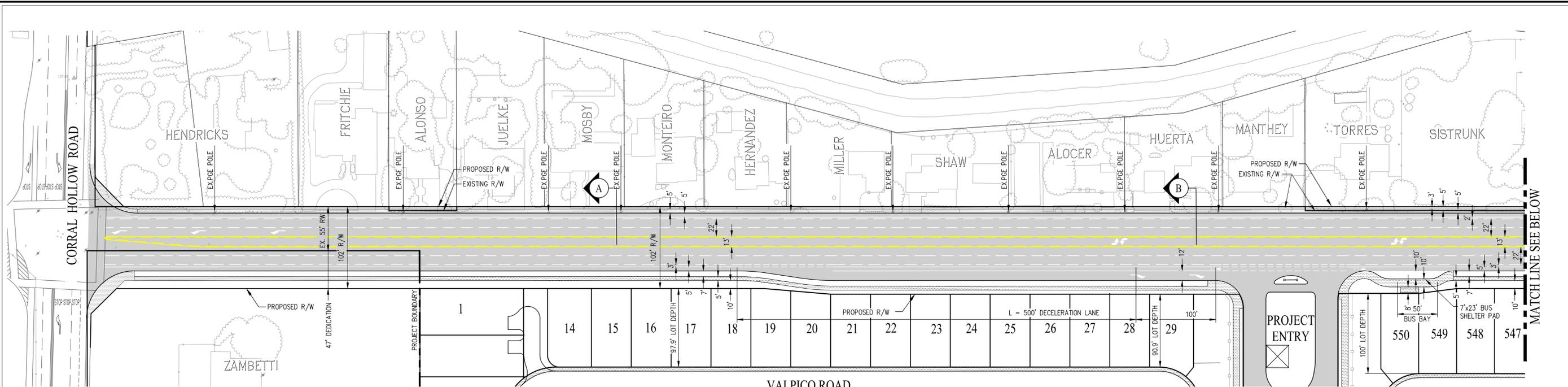
LOT NO.	LOT AREA (SF)
351	4655
352	4658
353	4661
354	4665
355	4668
356	4672
357	4574
358	4577
359	4580
360	4583
361	4587
362	4590
363	5140
364	4623
365	4623
366	4623
367	4623
368	4623
369	4623
370	4623
371	4623
372	5267
373	5241
374	4600
375	4600
376	4600
377	4600
378	4600
379	4600
380	4600
381	4600
382	5114
383	5114
384	4600
385	4600
386	4600
387	4600
388	4600
389	4600
390	4600
391	5240
392	5234
393	5909
394	8466
395	6790
396	10008
397	6766
398	5686
399	5197
400	4798
401	5114
402	6072
403	5610
404	5610
405	5610
406	5610
407	5610
408	5610
409	6846
410	8522
411	5944
412	5944
413	5944
414	5944
415	5944
416	5944
417	6461
418	7397
419	6627
420	6851

LOT AREA SUMMARY

LOT NO.	LOT AREA (SF)
421	6625
422	6438
423	6329
424	6531
425	6680
426	6647
427	6397
428	6294
429	7344
430	5654
431	5999
432	6009
433	6014
434	6019
435	6024
436	5800
437	5649
438	5654
439	5659
440	5664
441	5669
442	5673
443	5678
444	5683
445	5688
446	5693
447	5775
448	7118
449	7126
450	6414
451	6100
452	6100
453	6100
454	5800
455	6100
456	6100
457	6100
458	6100
459	6414
460	8612
461	8163
462	8163
463	8139
464	7908
465	7034
466	6684
467	6222
468	6131
469	6447
470	6414
471	7759
472	7281
473	7051
474	7246
475	8392
476	6949
477	7924
478	9043
479	7949
480	7848
481	6814
482	6487
483	6468
484	7327
485	7971
486	6827
487	6420
488	6081
489	6404
490	8584

LOT AREA SUMMARY

LOT NO.	LOT AREA (SF)
491	6000
492	6000
493	6000
494	6000
495	6000
496	5999
497	5999
498	6000
499	6000
500	6000
501	6000
502	6000
503	7291
504	6415
505	6536
506	6863
507	7250
508	6404
509	6435
510	6828
511	6431
512	6571
513	6825
514	7187
515	7132
516	6696
517	7157
518	4896
519	4900
520	4851
521	4792
522	4795
523	4799
524	



CITY OF TRACY
APPROVED FOR CONSTRUCTION SUBJECT TO THE DATA SHOWN.
CITY OF TRACY AND THE UNDERSIGNED ARE NOT RESPONSIBLE FOR
ERRORS AND/OR OMISSION THAT MAY BE PRESENT ON THESE PLANS.
ROBERT ARMAJO CITY ENGINEER DATE:



Carlson, Barbee & Gibson, Inc.
CIVIL ENGINEERS • SURVEYORS • PLANNERS
2835 CAMINO RAMON, SUITE 350
SAN RAMON, CALIFORNIA 94583
TEL (925) 866-0322
FAX (925) 866-8575

SYMBOL	DATE	REVISIONS	DESCRIPTION	APPROVED

DESIGNED BY: AP
DRAWN BY: NISM
CHECKED BY: GDM
SCALE: AS SHOWN

VALPICO ROAD IMPROVEMENTS
TRACT 3917
VESTING TENTATIVE MAP
TRACY VILLAGE
TRACY, CALIFORNIA

SHEET
TM09
OF 9 SHEETS

RESOLUTION 2020 - 007

APPROVING AN EXTENSION OF THE TRACY VILLAGE VESTING TENTATIVE SUBDIVISION MAP FOR 590 LOTS TO MAY 15, 2022. THE PROJECT IS LOCATED AT THE SOUTHEAST CORNER OF CORRAL HOLLOW AND VALPICO ROADS, ASSESSOR'S PARCEL NUMBERS 244-030-01, 244-030-02, AND 240-040-01. THE APPLICANT AND PROPERTY OWNERS ARE JC TRACY GROUP, LLC AND PONDEROSA HOMES. APPLICATION NUMBER EXT20-0001.

WHEREAS, The City Council approved the Vesting Tentative Subdivision Map and Specific Plan for the Tracy Village 590-lot subdivision on May 15, 2018, and

WHEREAS, Pursuant to Government Code Section 66452.6(a)(1), the Vesting Tentative Subdivision Map was scheduled to expire on May 15, 2020, and

WHEREAS, Pursuant to Tracy Municipal Code Sections 12.28.060 and 12.16.090, the Planning Commission may grant extensions for Vesting Tentative Subdivision Maps for a period of up to three years, and

WHEREAS, On March 24, 2020, JC Tracy Group, LLC and Ponderosa Homes submitted a request to extend their Vesting Tentative Subdivision Map approval through May 15, 2022, and

WHEREAS, The project is consistent with the General Plan and Title 12, the Subdivision Ordinance, of the Tracy Municipal Code, in terms of density, circulation, and land use, and

WHEREAS, The site is physically suitable for the proposed density of development, which is below the maximum density allowed by the General Plan designation of Residential Low, and

WHEREAS, Traffic circulation is designed in accordance with City standards for the proposed density to ensure adequate service levels are met and match adjacent street improvements, and

WHEREAS, The design of the subdivision or the proposed improvements will not cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat, and

WHEREAS, The design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of, property within the proposed subdivision, and

WHEREAS, The project complies with all other applicable ordinances, regulations, and guidelines of the City, including but not limited to, the local floodplain ordinance. The subject property is not located within any floodplain and the project, with conditions, will meet all applicable City design and improvement standards, and

WHEREAS, All the public facilities necessary to serve the subdivision will be in place prior to the issuance of building permits. All the public facilities necessary to serve the subdivision or mitigate the impacts created by the subdivision will be assured through a subdivision improvement agreement prior to approval of a final map, and

WHEREAS, The project does not propose changes that would result in a major revision to the previous Environmental Impact Report that analyze the project site and is exempt from the California Environmental Quality Act per Section 15162;

NOW, THEREFORE, BE IT RESOLVED, The Planning Commission of the City of Tracy does hereby approve the extension of the Tracy Village Vesting Tentative Subdivision Map (Application Number TSM17-0003) through May 15, 2022.

The foregoing Resolution 2020 - 007 of the Planning Commission was adopted by the Planning Commission on the 10th day of June, 2020, by the following vote:

AYES: COMMISSION MEMBERS:

NOES: COMMISSION MEMBERS:

ABSENT: COMMISSION MEMBERS:

ABSTAIN: COMMISSION MEMBERS:

Chair

ATTEST:

Staff Liaison

AGENDA ITEM 1.C

REQUEST

PUBLIC HEARING TO CONSIDER APPLICATIONS FOR REZONING THE APPROXIMATELY 10.92-ACRE SITE LOCATED AT THE SOUTHEAST CORNER OF CORRAL HOLLOW ROAD AND MIDDLEFIELD DRIVE, ASSESSOR'S PARCEL NUMBER 244-020-31, FROM PUD TO NS AND FOR A CONDITIONAL USE PERMIT AND DEVELOPMENT REVIEW PERMIT FOR AN AUTOMOTIVE SERVICE STATION, ELECTRIC VEHICLE CHARTING STATION, AND CONVENIENCE STORE. APPLICANT IS SCHACK AND COMPANY AND PROPERTY OWNERS ARE HARPREET SINGH & VARINDER PAL SINGH - APPLICATION NUMBERS R19-0001, CUP19-0013, AND D19-0031

DISCUSSION

Project Background, Location, and Description

In the mid-1990's, the City Council approved Concept, Preliminary and Final Development Plans, and a subdivision map for the Edgewood Planned Unit Development (PUD) located north of Linne Road between Corral Hollow Road and Tracy Boulevard. Edgewood consists of single-family residences, parks, a school, a multi-family residential site, and a neighborhood shopping center. The subdivision has been built out with exception of a 10.92-acre property designated for a neighborhood shopping center located at the southeast corner of Corral Hollow Road and Middlefield Drive, across the street from the Waterstone Apartments and adjacent to Don Cose Park (Attachment A: Location Map of subject site).

In 2012 and 2013, the City received applications for development of multi-family housing and self-storage on the subject site. After receiving opposition from the neighboring property owners on the project, the applicant withdrew the development applications.

The property has since changed ownership, and the property owners are proposing to rezone the 10.92-acre site from PUD to Neighborhood Shopping (NS) Zone, which principally permits a variety of neighborhood-serving retail uses and conditionally permits automotive service stations. The applicant, on the property owners' behalf, has also submitted applications for a conditional use permit and development review permit for the construction of an automotive service station with an electric charging station and a retail convenience store.

Rezoning

As discussed above, the Edgewood PUD originally designated the subject site as "neighborhood shopping center," but the PUD did not establish land use or design standards for development of a neighborhood shopping center. Rather than amend the PUD to establish development standards, the applicant has proposed to rezone the site to the NS Zone as described in Title 10, Chapter 10.08, Article 17 (Attachments B and C), which permits a certain number of consumer services intended for the convenience of surrounding neighborhoods.

The project site is designated Commercial under the General Plan. The NS Zone is consistent with the Commercial designation of the General Plan.

Land Use

According to the applicant, the property owners intend to build out the site with neighborhood-serving commercial development as indicated on the site plan (Attachment D). At this time, the property owners desire to construct an automotive service station and electrical charging station, with a potential car wash and possible retail multi-tenant building in the future. The proposed project's land uses are consistent with the proposed NS Zone and the Commercial designation of the General Plan.

In 2009, regulations were adopted by the Airport Land Use Commission (ALUC) of the San Joaquin County Council of Governments (SJCOG) to minimize the public's exposure to excessive noise and safety hazards, as well as ensure that the approaches to airports are kept clear of structures and other conflicts that could pose an aviation safety hazard. Due to the proximity of the site to the Tracy Municipal Airport, the Airport Land Use Compatibility Plan (ALUCP) has identified approximately half of the subject site to be located within Airport Compatibility Zones 2 and 3, which impose land use limitations on new development at the site. The improvements proposed with this development review permit application are outside of Zones 2 and 3. City staff worked with SJCOG staff, who administers the ALUCP, to confirm that the proposed land uses and a site layout are compatible with the ALUCP. Future development within Zones 2 and 3 will be submitted to the City and SJCOG for review.

Development Plan, Architecture, and Circulation

The proposed development plan consists of a 3,884 sf convenient store building, an automotive service station with six double-sided dispensers and a 2,880 sf canopy, an electric vehicle charging station consisting of seven stations, an air and water dispenser with a dedicated parking area, and associated parking and landscaping improvements on the approximately 2.44-acre northwestern portion of the subject site.

The proposed buildings and associated structures are of high-quality aesthetic that meets the City's Design Goals and Standards for commercial architecture. The buildings employ varying roof heights and materials, building popouts and wall movement, substantial stonework, decorative trims and accent lighting, and application of warm colors. The mansard tile roof and exposed rafter tails complement the residential character of the adjacent subdivision. The fueling area canopy and the trash enclosure will architecturally match the building. All onsite structures are designed with a complementary level of architectural detailing, and utility equipment will largely be screened behind decorative screen walls and/or landscaping. As part of the project construction, the corner "Edgewood" sign, screen wall, and conifer trees at the Corral Hollow Road and Middlefield Drive intersection are proposed to be removed. Instead, the corner will be held by the new convenience store building and new landscaping.

The site plan proposes through circulation throughout the developed area of the site and is designed to allow for connectivity to future development on the remainder of the parcel. Two driveways are proposed to serve the site, a full access driveway on Middlefield Drive, which aligns with the opening in the medians and with the driveway that serves the apartment complex to the north, and a partial access driveway on Corral Hollow Road.

The two existing driveways will be reconstructed to serve the site in accordance with City standards. The project is conditioned to construct frontage improvements on Corral Hollow Road in accordance with the Corral Hollow Plan Line and the traffic analysis that was prepared for this project. These improvements include the removal of existing frontage and construction of a right-turn pocket from Corral Hollow Road onto Middlefield Drive and a bike lane, as well as restoration of the sidewalk, curb, gutter, and right-of-way landscaping. The property line location and onsite improvements will not be affected by the frontage improvements. The driveway on Corral Hollow Road will be restricted to right-in, right-out movements, as the project will be conditioned to construct a median on Corral Hollow Road that will restrict left-turn in and out movements at this driveway. The project will also be conditioned to lengthen the left-turn lane on westbound Middlefield Drive and reconstruct the median accordingly. These frontage improvements aim to keep traffic moving efficiently.

Neighborhood Comments

Because this site has long been designated for a neighborhood shopping center, staff asked the applicant to conduct outreach efforts to the residents within Edgewood to explain the proposed land use amendments, share the proposed development plan, and listen to comments and/or concerns they may have prior to scheduling the item for Planning Commission and City Council consideration.

According to the applicant, the project proposal was well-received by the residents. The City received six letters from the community in support of neighborhood-serving retail uses at the subject site. There were no written comments received on the proposed site layout or architecture.

Environmental Document

California Environmental Quality Act (CEQA) Guidelines Section 15183 allows a streamlined environmental review process for projects that are consistent with the densities established by existing zoning, community plan or general plan policies for which an Environmental Impact Report (EIR) was certified. As noted above, the proposed project is consistent with the land use designation and densities established by the Tracy General Plan, for which an EIR was certified. The provisions contained in Section 15183 of the CEQA Guidelines are presented in an environmental analysis prepared by De Novo Planning Group (Attachment E).

RECOMMENDATION

Staff recommends that the Planning Commission do the following:

1. Recommend that the City Council rezone the subject property from Planned Unit Development (PUD) Zone to Neighborhood Shopping (NS) Zone (application R19-0001),
2. Approve Conditional Use Permit application CUP19-0013 for an automotive service station with associated electric vehicle charging station, not to take effect until and unless the project site is rezoned to the Neighborhood Shopping Zone following City Council approval of the rezone request (R19-0001), and
3. Recommend that the City Council approve Development Review Permit application D19-0031 for 3,884 sf convenience store building, an automotive service station with six dispensers and a 2,880 sf canopy, an electric vehicle charging station consisting of seven stations, and associated parking area and landscaping improvements on the approximately 2.44-acre northwestern portion of the project site, not to take effect until and unless the project site is rezoned to the Neighborhood Shopping Zone following City Council approval of the rezone request (R19-0001).

SUGGESTED MOTION

Move that the Planning Commission do the following:

1. Recommend that the City Council rezone the subject property from Planned Unit Development (PUD) Zone to Neighborhood Shopping (NS) Zone,
2. Approve Conditional Use Permit application CUP19-0013 for an automotive service station with associated electric vehicle charging station, not to take effect until and unless the project site is rezoned to the Neighborhood Shopping Zone following City Council approval of the rezone request, and
3. Recommend that the City Council approve Development Review Permit application D19-0031 for a 3,884 sf convenience store building, an automotive service station with six dispensers and an 2,880 sf canopy, an electric vehicle charging station consisting of seven stations, and associated parking area and landscaping improvements on the approximately 2.44-acre northwestern portion of the project site, not to take effect until and unless the project site is rezoned to the Neighborhood Shopping Zone following City Council approval of the rezone request.

Prepared by: Kimberly Matlock, Associate Planner

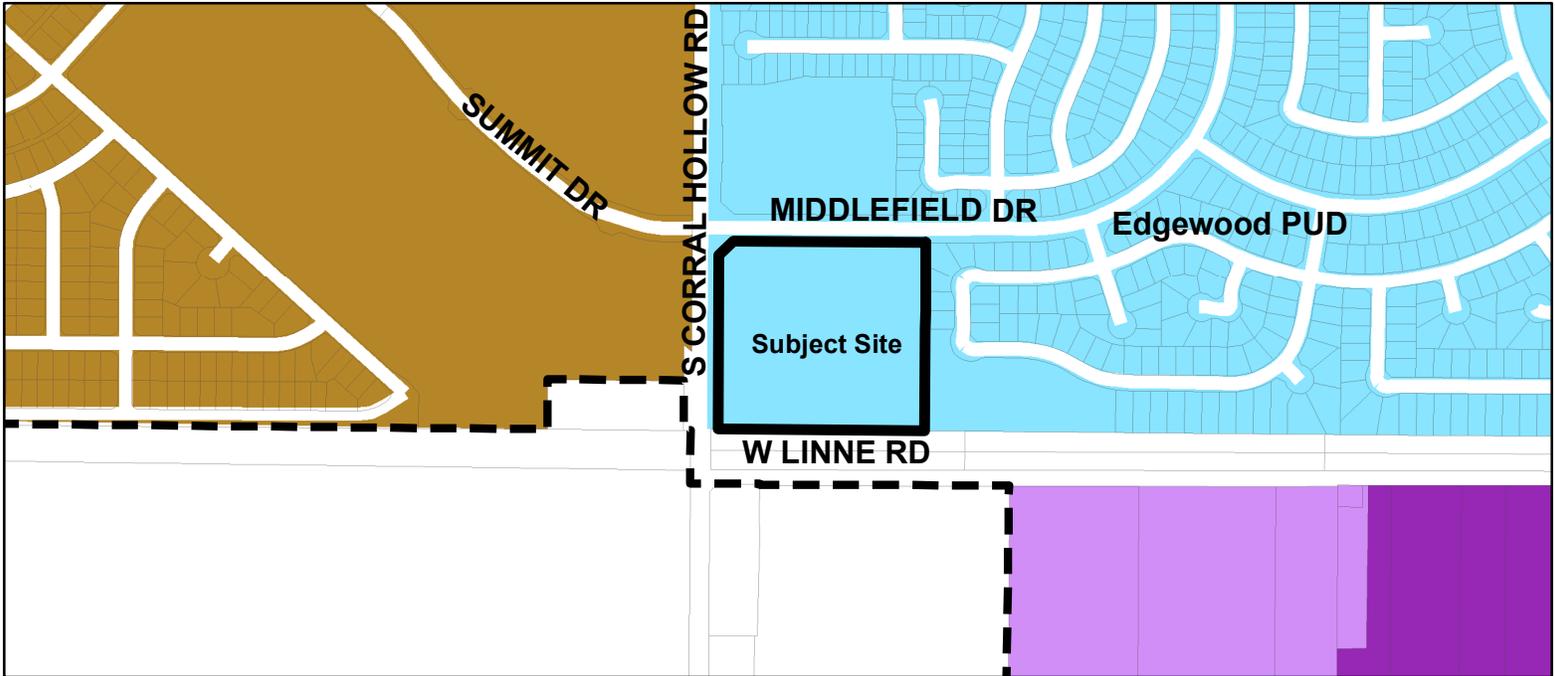
Approved by: Bill Dean, Assistant Development Services Director

ATTACHMENTS

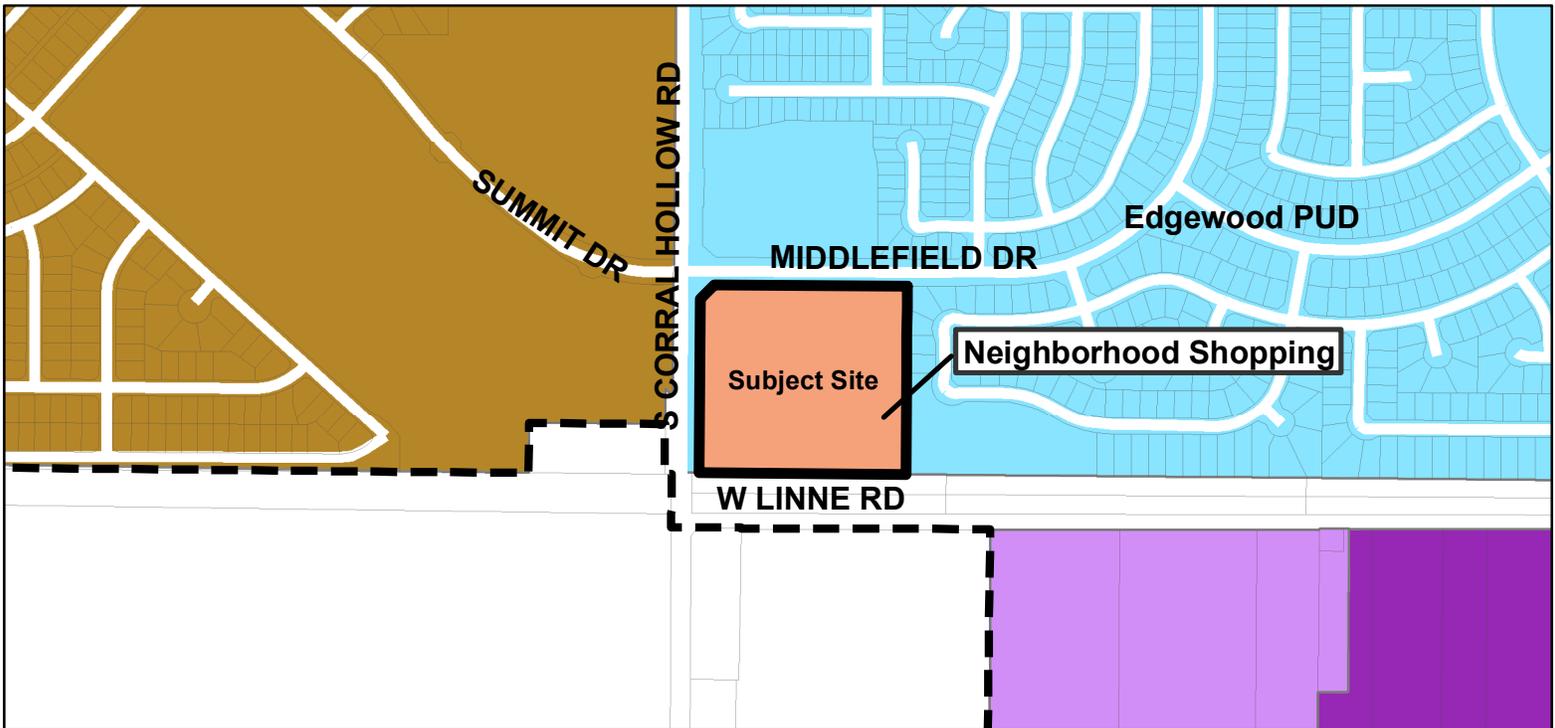
- Attachment A: Location Map
- Attachment B: Map of Existing and Proposed Zoning
- Attachment C: Neighborhood Shopping Zone excerpted from the TMC
- Attachment D: Project Plans
- Attachment E: Environmental Analysis by De Novo Planning Group
- Attachment F: Planning Commission Resolution for R19-0001 with draft Ordinance
- Attachment G: Planning Commission Resolution for CUP19-0031
- Attachment H: Planning Commission Resolution for D19-0031

Existing and Proposed Zoning

Existing Zoning



Proposed Zoning



Legend

City Limits

ZONING

- Ellis Specific Plan
- Light Industrial
- Heavy Industrial
- Neighborhood Shopping
- Planned Unit Development

N

0 500 1,000 2,000 Feet

Think Inside the Triangle™

Tracy Municipal Code, Title 10, Article 17. - Neighborhood Shopping Zone (NS)

10.08.2220 - Purpose (NS).

Uses in the Neighborhood Shopping (NS) Zone are intended for the convenience of the surrounding neighborhoods.

(Prior code § 10-2.1700)

10.08.2230 - Descriptive regulations (NS).

In the NS Zone the following specified regulations shall govern, unless otherwise provided in this chapter:

- (a) Neighborhood shopping centers are located as an integral part of neighborhoods for the purpose of providing goods and services to the residents of the surrounding area. Neighborhood shopping centers are also provided to allow those uses not ordinarily considered detrimental to a residential zone because of traffic, noise, or other nuisance factors.
- (b) Uses in the Neighborhood Shopping (NS) Zone are primarily for the convenience of the surrounding neighborhoods, and are not intended to be business/ professional centers. A conditional use permit shall be required for Business and Professional Office uses listed in Group 41 exceeding 3,000 square feet in gross floor area. The cumulative gross floor area of all business/professional office uses in a Neighborhood Shopping Zone shall not exceed ten (10) percent of the total gross floor area of the center.
- (c) No commercial use or retail stores in the NS Zone shall be devoted to the sale of used or secondhand goods, clothing, wares, or other merchandise.
- (d) All permitted commercial uses shall be confined within completely enclosed buildings.
- (e) Neighborhood shopping centers should be designed and located to serve a population of at least 2,500 persons.

(Prior code § 10-2.1701)

10.08.2240 - Permitted uses (NS).

- (a) In the NS Zone, only uses which are included in the following use groups shall be permitted without conditional approval:

Group 1 Minor public service uses;

Group 4 Temporary buildings and uses;

Group 29 Accessory uses;

Group 30 Institutional and recreational uses serving local residential areas;

Group 41 Business and Professional Office Uses, uses less than 3,000 square feet in gross floor area providing services to residents of the surrounding neighborhoods; and

Group 42 Retail trade establishment, convenience goods.

(b) In the NS Zone, uses which are included in the following use groups shall be permitted only with conditional approval:

Group 2 Local public service and utility installations;

Group 41 Business and Professional Office Uses, uses greater than 3,000 square feet in gross floor area providing services to residents of the surrounding neighborhood;

Group 43 Consumer service and retail trade establishments, including only those uses of subsection (c) of Section 10.08.2230 which serve less than 14 percent alcohol; and

Group 44 Automobile service stations (not including repair work). Excluding uses referenced in subsection (b), (c), (d) and (e) of Section 10.08.2230.

(Prior code § 10-2.1702)

10.08.2250 - Signs (NS).

Signs shall be permitted in the NS Zone in compliance with the provisions of Article 35 of this chapter.

(Prior code § 10-2.1703)

10.08.2260 - Building site area (NS).

The minimum area zoned neighborhood shopping shall not be less than two (2) contiguous acres. Neighborhood shopping center sites less than two (2) acres in size, under separate ownership, and not separated by public streets, rights-of-way or easements shall be permitted provided the combined size of such separate sites established a zone of two (2) acres or more. Said individual neighborhood shopping sites shall individually comply with the development standards of the Neighborhood Shopping Zone sites within which they are located. Said individual neighborhood shopping sites shall have shared access and integrated, internal circulation plan.

(Prior code § 10-2.1704)

10.08.2270 - Lot area (NS).

(See sections 10.08.2260 and 10.08.2280 of this Article.)

(Prior code § 10-2.1705)

10.08.2280 - Yard areas (NS).

Minimum yards in the NS Zone shall be as follows:

- (a) Front yards. The same as the most restrictive adjacent zone along the street frontages; and
- (b) Side and rear yards. Fifteen (15) feet, except where adjoining a commercial or industrial zones there shall be no yard requirements.

(Prior code § 10-2.1706)

10.08.2290 - Height (NS).

The maximum height in the Neighborhood Shopping Zone shall be two and one-half (2½) stories or thirty-five (35) feet, whichever is less.

(Prior code § 10-2.1707)

10.08.2300 - Permissible lot coverage (NS).

The lot coverage in the NS Zone shall conform to the design standards as approved in the final site development plan as set forth in this Article. However, buildings, parking and accessory routes shall not constitute more than ninety (90) percent of the total development area.

(Prior code § 10-2.1708)

10.08.2310 - Floor area (NS).

There shall be no maximum floor area requirements in the NS Zone, except for business and/or professional offices which shall not exceed 3,000 square feet for any one user, or greater than ten (10) percent of the total floor area of the center for all business and/or professional office uses in the NS Zone. Business and Professional Office Uses listed in Group 41 that are individually greater than 3,000 square feet in gross floor area shall require a conditional use permit.

(Prior code § 10-2.1709)

10.08.2320 - Off-street parking (NS).

(See Article 26 of this chapter.)

(Prior code § 10-2.1710)

10.08.2330 - Usable open space (NS).

The usable open space in the NS Zone shall conform to the final site development plan as set forth in this Article. However, a minimum of ten (10) percent of the total area shall be reserved for pedestrian malls, landscaping, or other open spaces.

(Prior code § 10-2.1711)

10.08.2340 - Loading and unloading space (NS).

All commercial property in the NS Zone shall designate an area for loading and unloading upon such property. This area shall not be included in the required parking area.

(Prior code § 10-2.1712)

10.08.2350 - Development review (NS).

All uses requiring a building permit shall obtain development review compliance, except as provided for in Article 30 of this chapter.

(Prior code § 10-2.1713)

ATTACHMENT D

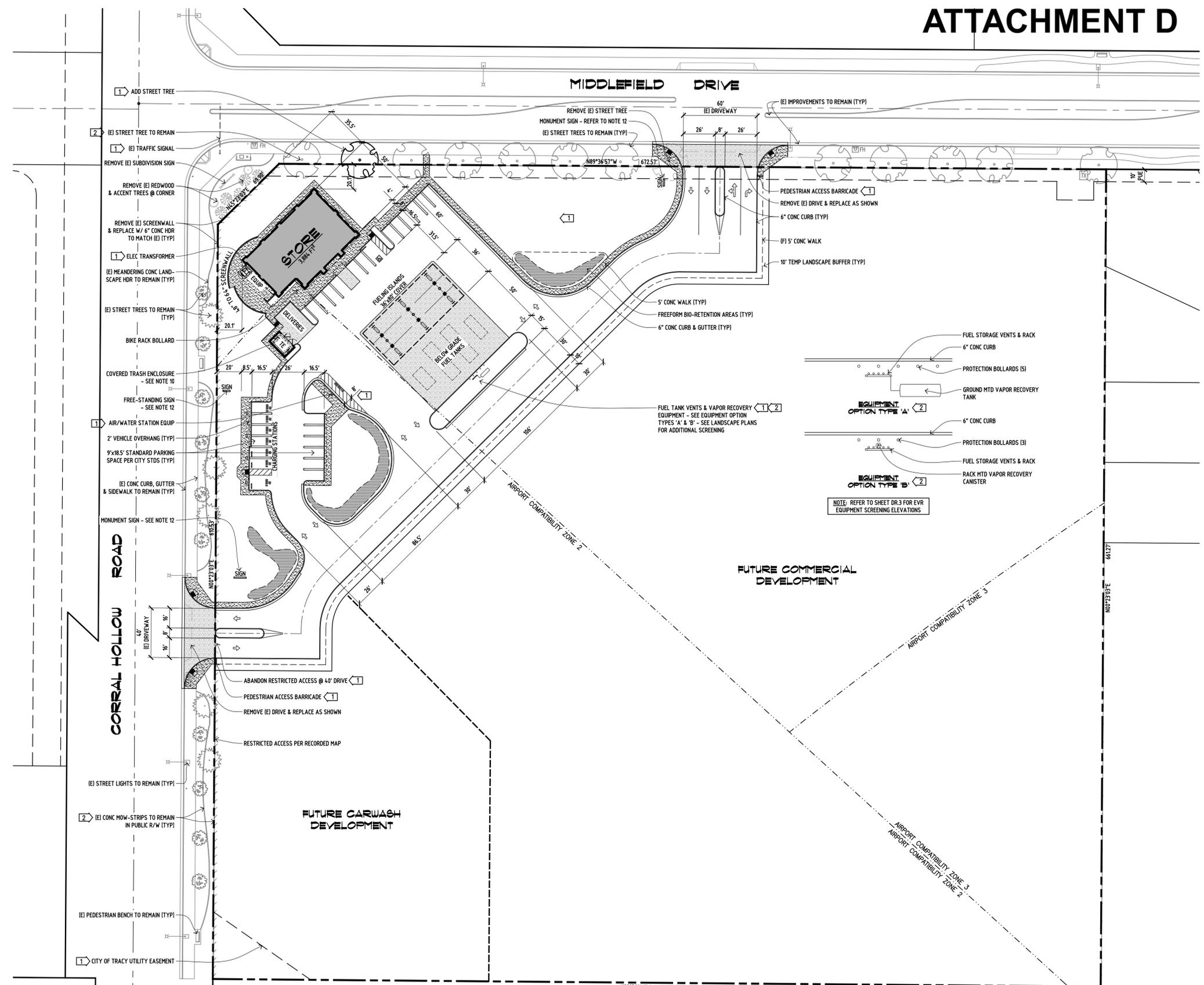
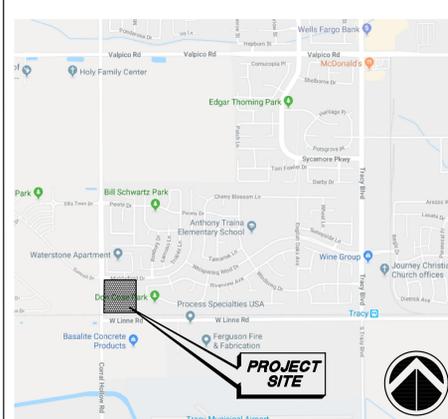
SITE DATA

- NOTES**
- ZONE: CURRENT: PUD
PROPOSED: NS - NEIGHBORHOOD SHOPPING (REZONE) 1
 - GENERAL PLAN: COMMERCIAL
 - PROPERTY OWNER: HARPREET SINGH & VARINDER PAL SINGH
15 E. GRANTLINE ROAD
TRACY, CALIFORNIA 95304
 - ENGINEER: SCHACK & COMPANY, INC.
DAN R. SCHACK
1025 CENTRAL AVENUE
TRACY, CALIFORNIA 95376
(209) 835-2178
 - PROPERTY ADDRESS: NOT ASSIGNED
TRACY, CALIFORNIA 95304
 - ASSESSORS PARCEL: 248-000-13
 - UTILITIES: WATER CITY OF TRACY
SANITARY SEWER CITY OF TRACY
STORM WATER CITY OF TRACY
TELEPHONE AT&T
CABLE TV COMCAST
ELECTRIC PACIFIC GAS & ELECTRIC
GAS PACIFIC GAS & ELECTRIC
 - EXTERIOR LIGHTING MOUNTED ON BUILDING OR IN PARKING AREA WILL BE DIRECTED AWAY FROM ADJOINING PROPERTIES. ILLUMINATION OF (N) PARKING AREAS SHALL MEET MINIMUM STANDARD OF 1-FOOT-CANDLE PER SQ.FT
 - ALL WORK WILL CONFORM TO CITY OF TRACY STANDARDS
 - TRASH ENCLOSURE WILL BE COVERED & HAVE SCREEN WALLS/GATES TO A (MIN) OF 7'-0" HT. FINISH WILL CONFORM TO BUILDING FINISH IN COLOR & TEXTURES. GATES WILL BE SCREENED SOLID & OF METAL CONSTRUCTION. SCREEN WALLS WILL BE OF MASONRY CONSTRUCTION
 - STORM DRAINAGE WILL SURFACE FLOW THROUGH CURBS TO VEGETATED BIO-RETENTION AREAS & DRAIN TO EXISTING CITY OF TRACY STORM DRAIN FACILITIES. SEE PRELIMINARY GRADING & UTILITY PLAN
 - EXTERIOR SIGNAGE SHALL CONFORM TO CITY OF TRACY SIGN ORDINANCE, UNDER SEPARATE PERMIT, WITH PROPOSED SITE SIGNAGE DESCRIBED AS FOLLOWS:
MONUMENT SIGN: 24 FT @ 6'-0" HEIGHT MAXIMUM W/ (2) PER PARCEL ALLOWED
FREESTANDING SIGN: 100 FT @ 15'-0" HEIGHT MAXIMUM
 - CBC OCCUPANCY & CONSTRUCTION: OCCUPANCY GROUP 'M' (CONVENIENCE STORE)
OCCUPANCY GROUP 'M' (FUELING CANOPY)
 - BACKFLOW PREVENTION DEVICES FOR ALL WATER LINES SHALL BE INSTALLED PER CITY STD'S.
 - (E) EASEMENTS & UTILITIES SHOWN ARE PER RECORD INFORMATION
 - PROPERTY IS NOT LOCATED IN A 100 YEAR FLOOD PLAIN
 - THE PROJECT IS ANTICIPATED TO BE COMPLETED IN A MINIMUM OF (3) PHASES. PHASE 2 (CARWASH) AND PHASE 3 (RETAIL) ARE NOT PROPOSED WITH THIS APPLICATION AND WILL REQUIRE ADDITIONAL DEVELOPMENT REVIEW PROCESSES
 - ABBREVIATIONS:
BSL BUILDING SETBACK LINE (N) NEW
CBC CALIFORNIA BUILDING CODE (E) EXISTING
CFC CALIFORNIA FIRE CODE (F) FUTURE
PUE PUBLIC UTILITY EASEMENT (TYP) TYPICAL
FTP FOOTPRINT ROW RIGHT-OF-WAY
STD STANDARD sf SQUARE FEET
MIN MINIMUM W/ WITH

AREAS & PARKING

1. SITE AREA:	3 TOTAL PARCEL (10.92 ACRES)	475,675 sf
	4 PROPOSED DEVELOPMENT (PHASE 1)	106,464 sf
	5 FUTURE DEVELOPMENT (PHASE 2 & 3)	369,211 sf
2. BUILDING AREA:	CONVENIENCE STORE	3,884 sf
	FUELING ISLAND	2,880 sf
	TOTAL FLOOR AREA (PHASE 1)	6,764 sf
3. BUILDING COVERAGE:	6,764 / 106,764 (NO REQUIREMENT)	6.3 %
4. DEVELOPED LOT COVERAGE:	74,371 / 106,464 (90% MAX)	69.9 %
5. SITE DEVELOPMENT AREAS:	PAVEMENT & HARDSCAPE	66,998 sf
	PLANTING AREA (INCLUDES BIO-RETENTION)	29,374 sf
	BUILDING ROOF AREA	7,323 sf
	TOTAL PHASE 1 AREA (INCLUDES KIOSK AREAS)	106,464 sf
6. REFER TO PRELIMINARY LANDSCAPE PLAN FOR PLANTING & SHADING RATIOS		
7. PARKING:	REQUIRED: CONVENIENCE STORE @ (1) SPACE / 250 SF (3,884 SF)	15.5 sp
	TOTAL PARKING REQUIRED	16 sp
	PROVIDED: STANDARD SPACES	19 sp
	COMPACT SPACES	0 sp
	ACCESSIBLE SPACES	1 sp
	TOTAL PARKING PROVIDED	20 sp
	CHARGING STATION SPACES	7 sp
8. BICYCLES:	REQUIRED FOR AUTOMOBILE PARKING SPACES (0-19)	0 sp

LOCATION MAP



UNION PACIFIC RAILROAD
CONDITIONAL USE PERMIT
SITE PLAN
SCALE: 1"=40'
0 40' 80'

RECEIVED
May 20, 2020
City of Tracy
Development Services

REVISIONS	DATE	SYMBOL	DESCRIPTION
1	11/27/19		DEVELOPMENT REVIEW RESPONSE #2
2	01/20/20		DEVELOPMENT REVIEW RESPONSE #2
3	05/20/20		PROPERTY AREA CORRECTION

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<input type="checkbox"/>	PRELIMINARY REVIEW	09/10/19
<input type="checkbox"/>	INITIAL PLAN REVIEW	09/30/19
<input type="checkbox"/>	FINAL REVIEW	01/20/20
<input type="checkbox"/>	FINAL CONSTRUCTION	

CONDITIONAL USE PERMIT
REZONE
Edgewood Commercial Development
SOUTHEAST CORNER
MIDDLEFIELD ROAD & CORRAL HOLLOW ROAD
TRACY, CALIFORNIA 95371

Schack & Company, Inc.
PROFESSIONAL DESIGN GROUP
1025 Central Avenue Tracy, California 95376
Ph: (209) 835-2178 Fax: (209) 835-1488
www.schackandco.com
arch@schackandco.com

DATE: 08/28/19
DRAWN BY: SFS
CHECKED BY: SFS
JOB NO: 19.007
DR.1
OF 12 SHEETS

SYMBOL LEGEND

NEW	EXIST	SYMBOL DESCRIPTION
		STORM DRAIN W/ LINE SIZE (8" OR GREATER)
		STORM DRAIN CATCH BASIN
		STORM DRAIN DROP INLET
		STORM DRAIN MANHOLE
		STORM DRAIN W/ LINE SIZE (SMALLER THAN 8")
		STORM AREA DRAIN
		STORM DRAIN CLEAN-OUT
		STORM DRAIN OVERFLOW
		SANITARY SEWER W/ LINE SIZE
		SANITARY SEWER MANHOLE
		SANITARY SEWER CLEAN-OUT
		SANITARY SEWER WYE/SWEEP TO SEWER MAIN
		WATER W/ LINE SIZE
		WATER VALVE
		WATER METER
		FIRE SERVICE W/ LINE SIZE
		FIRE HYDRANT
		FIRE DEPARTMENT CONNECTION
		FIRE SERVICE BACKFLOW PREVENTION DEVICE
		FIRE SERVICE SINGLE CHECK VALVE
		JOINT TRENCH UNDERGROUND UTILITIES
		JOINT OVERHEAD UTILITIES
		ELECTRIC UNDERGROUND LINES
		ELECTRIC OVERHEAD LINES
		TELEPHONE UNDERGROUND LINES
		TELEPHONE OVERHEAD LINES
		CABLE TELEVISION UNDERGROUND LINES
		CABLE TELEVISION OVERHEAD LINES
		GAS LINES
		POWER POLE, TELEPHONE POLE OR JOINT POLE
		STREET LIGHTS (PUBLIC)
		SITE LIGHTS (PRIVATE)
		GRADE SLOPE DIRECTION

GENERAL NOTES

- BIO-RETENTION AREAS SHALL BE DESIGNED & INSTALLED PER THE CITY OF TRACY "MULTI-AGENCY POST-CONSTRUCTION STORMWATER STANDARDS MANUAL", DATED JUNE 2015
- MAIN ELECTRIC PANEL & METERS WILL BE INSTALLED INSIDE THE BUILDING. GAS SERVICE & METER WILL BE SCREENED BY LANDSCAPING OR ARCHITECTURAL FEATURE, IF REQ'D

PRELIMINARY BIO-RETENTION ANALYSIS

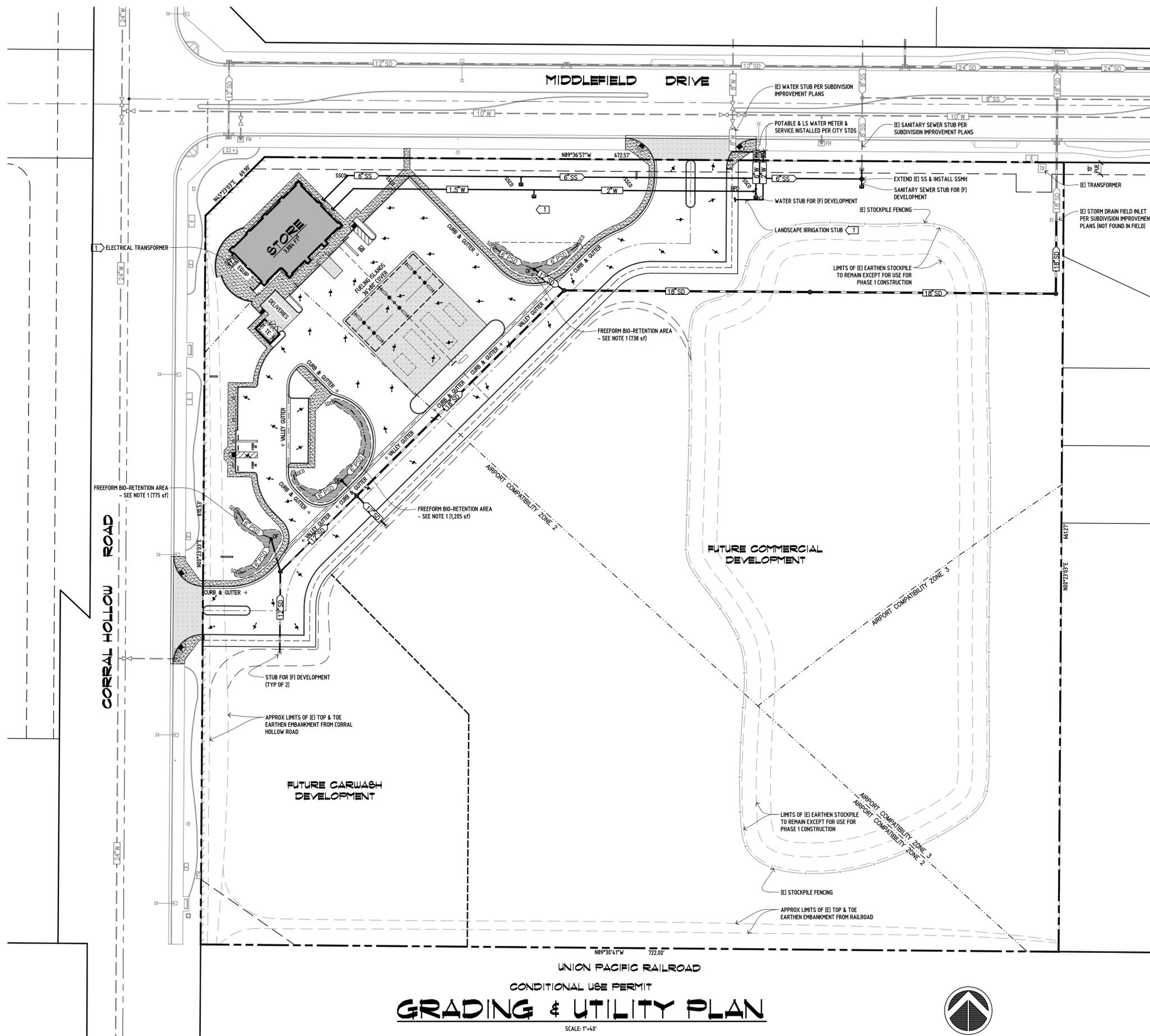
PROJECT	AREAS	DMA	PROJECT
Edgewood Commercial Development	Roof	A _{1c}	7,378 sq ft
S.E. Corner Middlefield Road & Corral Hollow Road	Hardscape & Paving	A _{1p}	66,998 sq ft
Tracy, California	Landscape	A _{1l}	29,374 sq ft
	Bioretention	A _{1b}	2,719 sq ft
	Total	A	106,469 sq ft

	FORMULA		
Imperviousness Ratio	$(A_{1c} + A_{1p}) / A$	I _c	0.699
Runoff Coefficient	$[0.858 \times I_c^2 - 0.78 \times I_c + 0.774 \times I_c + 0.04]$	C	0.493
Unit Stormwater Volume	$[I_c \times C \times P_{12}]$	P ₁₂	0.319 in

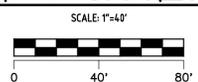
	FORMULA		
Stormwater Design Volume	$[A \times P_{12} / 12]$	SDV	2,830.9 cu ft
Stormwater Runoff Volume Credits		SDM _{max}	0.0 cu ft
Adjusted Stormwater Design Volume	$[SDV - SDM_{max}]$	SDV _{adj}	2,830.9 cu ft

BIORETENTION FACILITY LAYER			
Ponding Zone Depth	d _p	0.50 ft	
Planting Media Layer Depth	d _{pm}	1.50 ft	
Planting Media Porosity	n _{pm}	20%	
Gravel Layer Depth	d _g	1.50 ft	
Gravel Layer Porosity	n _g	20%	

	FORMULA		
Required Bottom Surface Area of Bioretention Facility	$[SDV_{adj} / (d_{pm} \times n_{pm} + d_g \times n_g)]$		2,573.5 sq ft
Provided Bottom Surface Area of Bioretention Facility			2,719.0 sq ft



GRADING & UTILITY PLAN



REVISIONS	DATE	SYMBOL	DESCRIPTION
	11/27/19		DEVELOPMENT REVIEW RESPONSE

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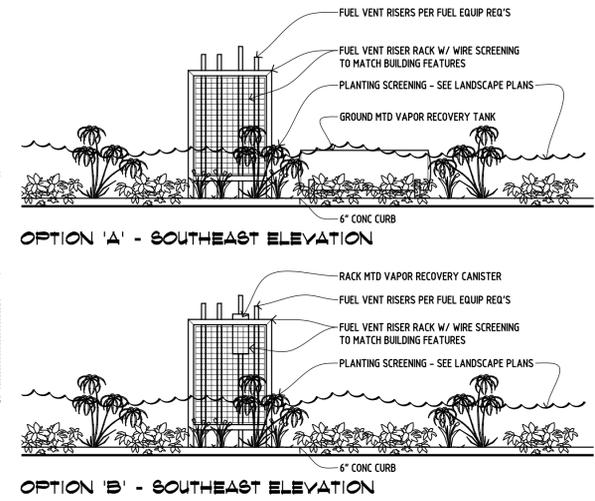
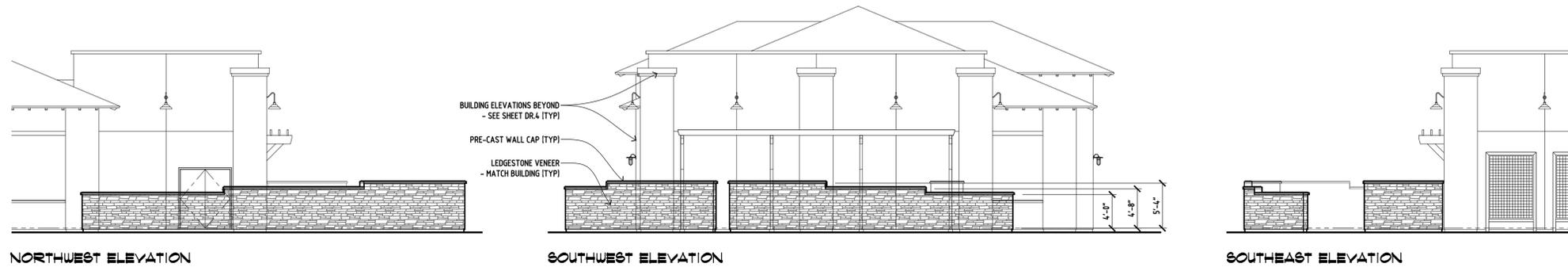
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<input type="checkbox"/>	INITIAL PLAN REVIEW	09/30/19
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<input type="checkbox"/>	FINAL CONSTRUCTION	

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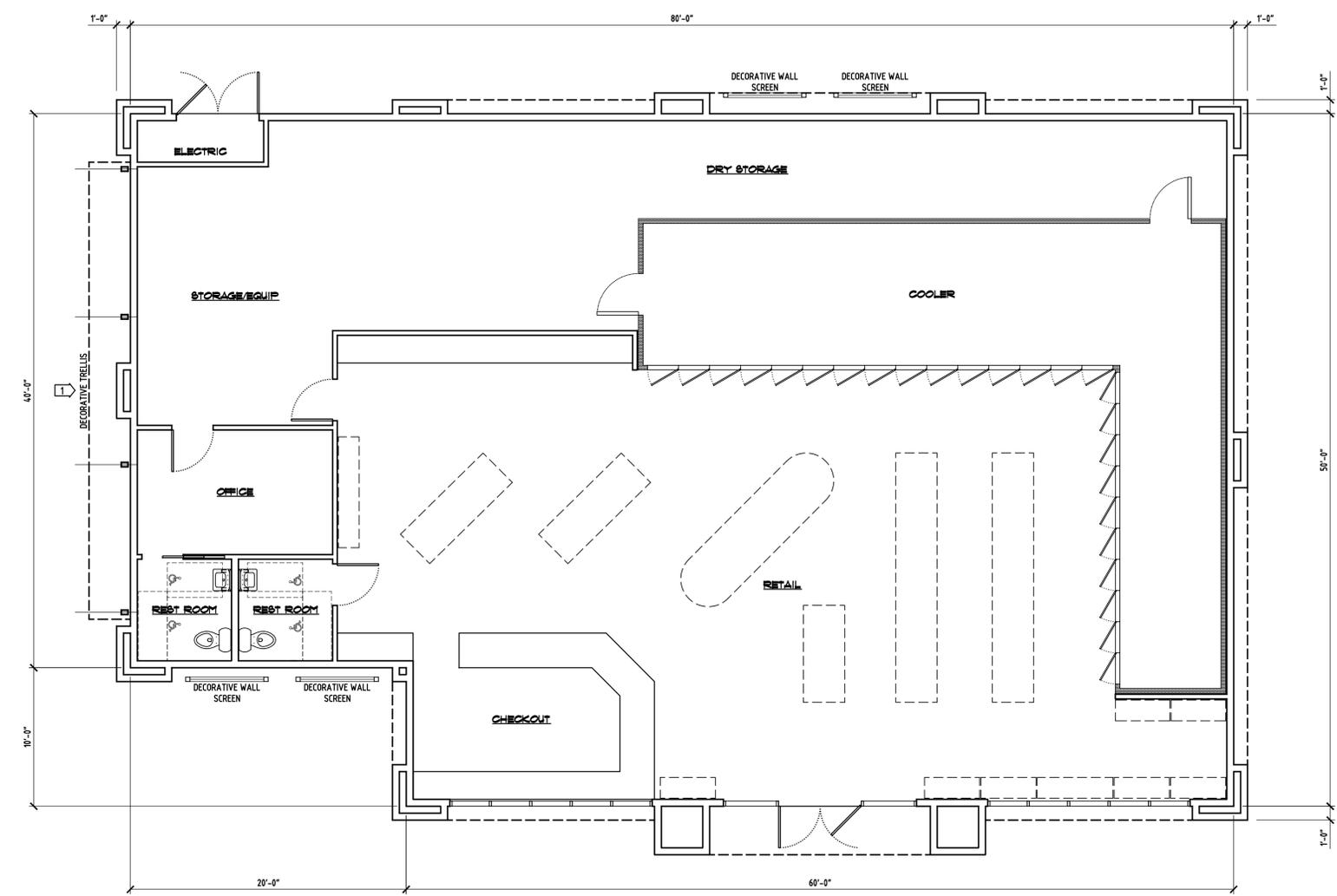


EQUIPMENT SCREEN WALL ELEVATIONS

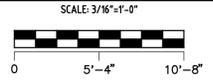
SCALE: 1/8"=1'-0"

EVR EQUIPMENT SCREEN

SCALE: 3/16"=1'-0"



**CONVENIENCE STORE
CONDITIONAL USE PERMIT
FLOOR PLAN**



REVISIONS	DATE	SYMBOL	DESCRIPTION
1	11/27/19	[Symbol]	DEVELOPMENT REVIEW RESPONSE #2
2	01/20/20	[Symbol]	DEVELOPMENT REVIEW RESPONSE #2

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Development**
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MIDDLEFIELD ROAD & CORRAL HOLLOW ROAD
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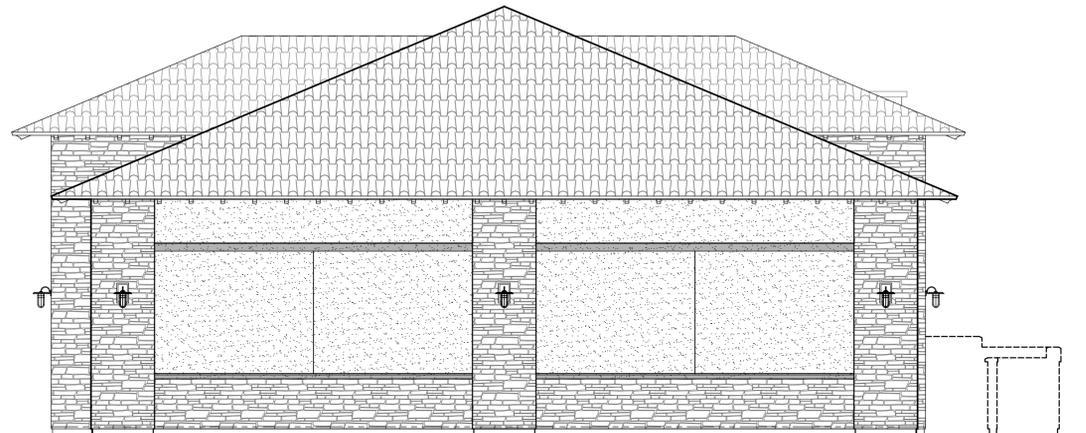
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<input type="checkbox"/>	INITIAL PLAN REVIEW	09/30/19
<input type="checkbox"/>	FINAL PLAN REVIEW	01/20/20
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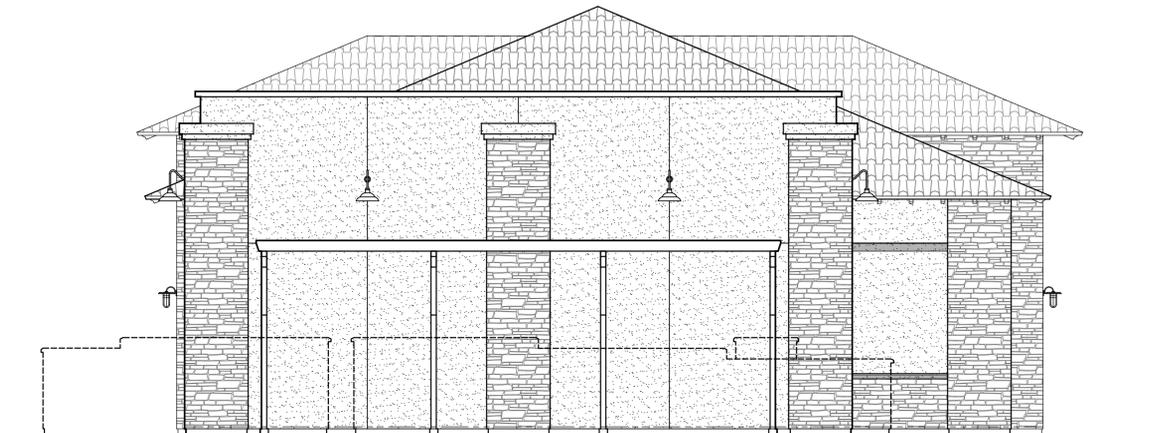
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SOUTHEAST ELEVATION



NORTHEAST ELEVATION



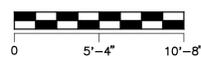
SOUTHWEST ELEVATION



NORTHWEST ELEVATION

CONVENIENCE STORE
 CONDITIONAL USE PERMIT
EXTERIOR ELEVATIONS

SCALE: 3/16"=1'-0"



DATE	SYMBOL	REVISIONS
11/27/19		DEVELOPMENT REVIEW RESPONSE

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<input type="checkbox"/>	INITIAL PLAN REVIEW	09/30/19
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<input type="checkbox"/>	FINAL REVIEW	01/20/20
<input type="checkbox"/>	FINAL CONSTRUCTION	

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REVISIONS	DATE	SYMBOL

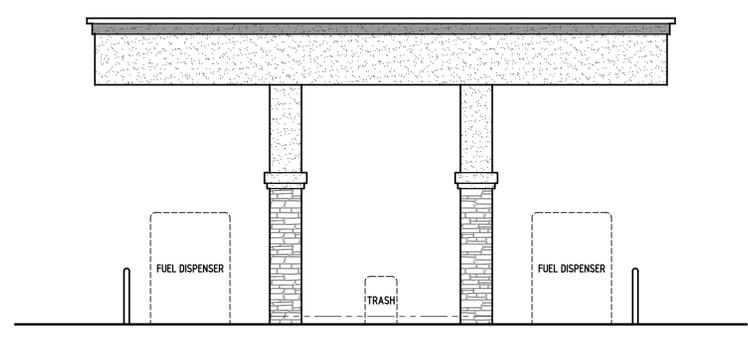
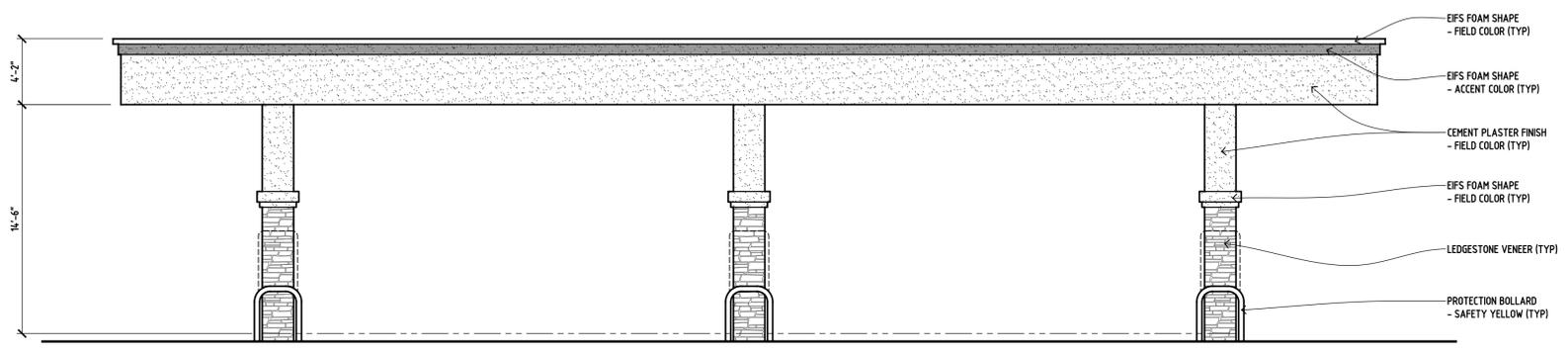
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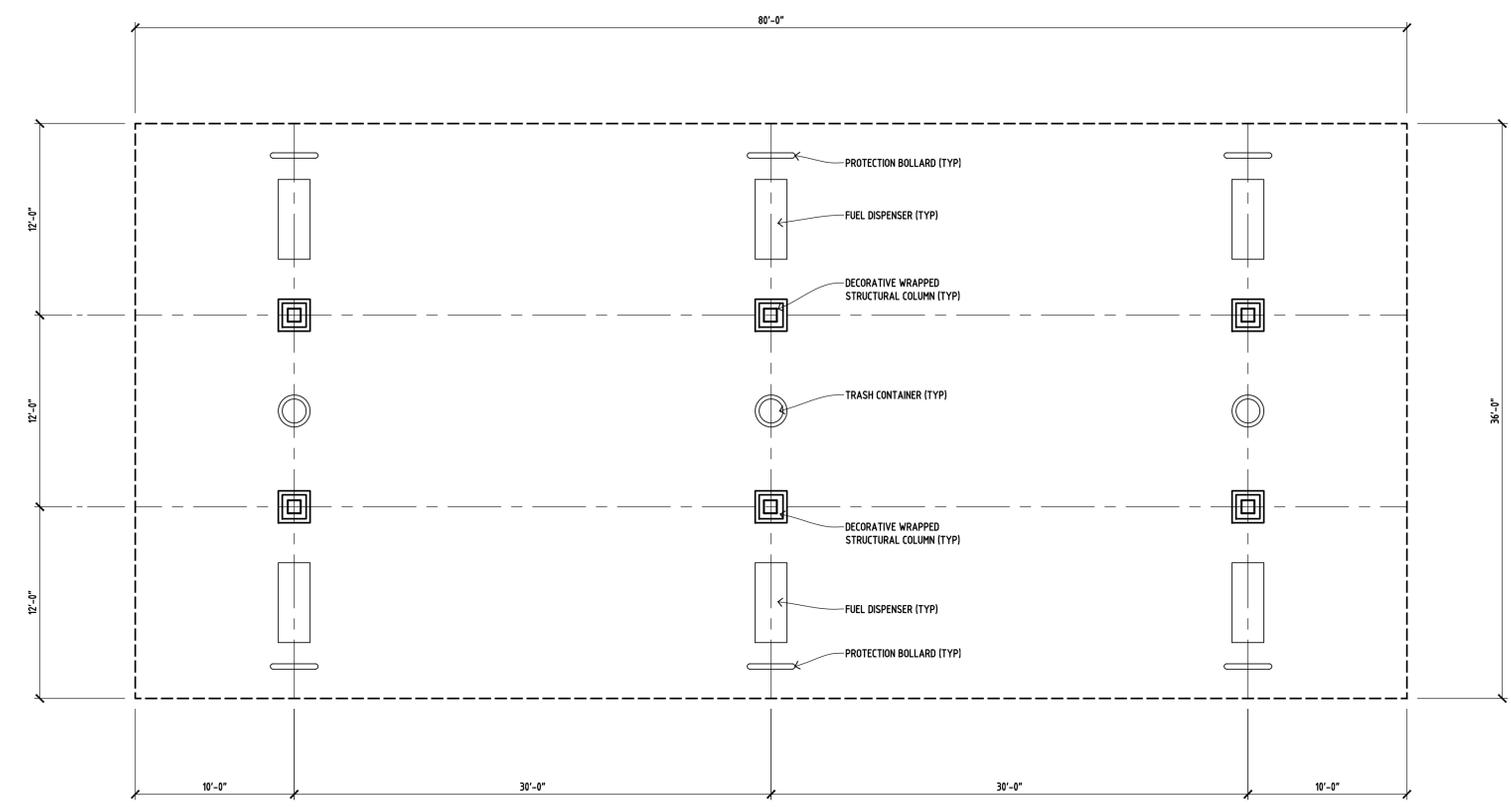
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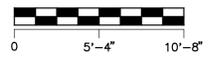
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OF 12 SHEETS	

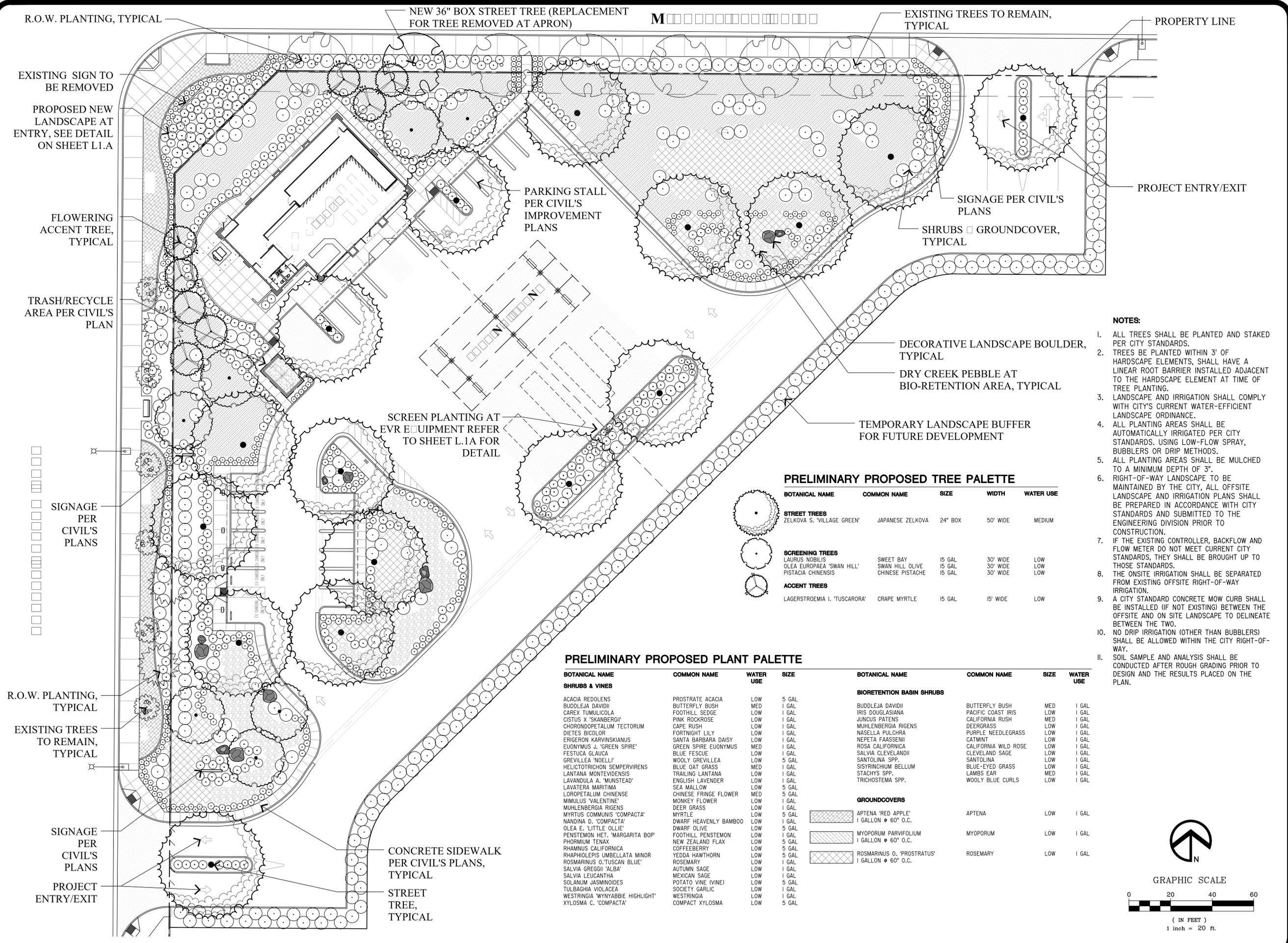


FUEL ISLAND
CONDITIONAL USE PERMIT
EXTERIOR ELEVATION
SCALE: 3/16"=1'-0"



FUEL ISLAND
CONDITIONAL USE PERMIT
FLOOR PLAN
SCALE: 3/16"=1'-0"





- NOTES:**
1. ALL TREES SHALL BE PLANTED AND STAKED PER CITY STANDARDS.
 2. TREES BE PLANTED WITHIN 3' OF HARDSCAPE ELEMENTS, SHALL HAVE A LINEAR ROOT BARRIER INSTALLED ADJACENT TO THE HARDSCAPE ELEMENT AT TIME OF TREE PLANTING.
 3. LANDSCAPE AND IRRIGATION SHALL COMPLY WITH CITY'S CURRENT WATER-EFFICIENT LANDSCAPE ORDINANCE.
 4. ALL PLANTING AREAS SHALL BE AUTOMATICALLY IRRIGATED PER CITY STANDARDS. USING LOW-FLOW SPRAY, BUBBLERS OR DRIP METHODS.
 5. ALL PLANTING AREAS SHALL BE MULCHED TO A MINIMUM DEPTH OF 3".
 6. RIGHT-OF-WAY LANDSCAPE TO BE MAINTAINED BY THE CITY, ALL OFFSITE LANDSCAPE AND IRRIGATION PLANS SHALL BE PREPARED IN ACCORDANCE WITH CITY STANDARDS AND SUBMITTED TO THE ENGINEERING DIVISION PRIOR TO CONSTRUCTION.
 7. IF THE EXISTING CONTROLLER, BACKFLOW AND FLOW METER DO NOT MEET CURRENT CITY STANDARDS, THEY SHALL BE BROUGHT UP TO THOSE STANDARDS.
 8. THE ONSITE IRRIGATION SHALL BE SEPARATED FROM EXISTING OFFSITE RIGHT-OF-WAY IRRIGATION.
 9. A CITY STANDARD CONCRETE MOW CURB SHALL BE INSTALLED (IF NOT EXISTING) BETWEEN THE OFFSITE AND ON SITE LANDSCAPE TO DELINEATE BETWEEN THE TWO.
 10. NO DRIP IRRIGATION (OTHER THAN BUBBLERS) SHALL BE ALLOWED WITHIN THE CITY RIGHT-OF-WAY.
 11. SOIL SAMPLE AND ANALYSIS SHALL BE CONDUCTED AFTER ROUGH GRADING PRIOR TO DESIGN AND THE RESULTS PLACED ON THE PLAN.

PRELIMINARY PROPOSED TREE PALETTE

BOTANICAL NAME	COMMON NAME	SIZE	WIDTH	WATER USE
STREET TREES				
ZELKOVA S. 'VILLAGE GREEN'	JAPANESE ZELKOVA	24" BOX	50' WIDE	MEDIUM
SCREENING TREES				
LAURUS NOBILIS	SWEET BAY	15 GAL	30' WIDE	LOW
OLEA EUROPAEA 'SWAN HILL'	SWAN HILL OLIVE	15 GAL	30' WIDE	LOW
PISTACIA CHINENSIS	CHINESE PISTACHE	15 GAL	30' WIDE	LOW
ACCENT TREES				
LAGERSTROEMIA I. 'TUSCARORA'	GRAPE MYRTLE	15 GAL	15' WIDE	LOW

PRELIMINARY PROPOSED PLANT PALETTE

BOTANICAL NAME	COMMON NAME	WATER USE	SIZE	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE
SHRUBS & VINES				BIORETENTION BASIN SHRUBS			
ACACIA REDOLENS	PROSTRATE ACACIA	LOW	5 GAL	BUDDLEJA DAVIDII	BUTTERFLY BUSH	MED	1 GAL
BUDDLEJA DAVIDII	BUTTERFLY BUSH	MED	1 GAL	IRIS DOUGLASSIANA	PACIFIC COAST IRIS	LOW	1 GAL
CAREX TUMULICOLA	FOOTHILL SEDGE	LOW	1 GAL	JUNCOUS PATENS	CALIFORNIA RUSH	MED	1 GAL
CISTUS X 'SKANBERGII'	PINK ROCKROSE	LOW	1 GAL	MUHLENBERGIA RIGENS	DEERGRASS	LOW	1 GAL
CHORONOPETALUM TECTORUM	CAPE RUSH	LOW	1 GAL	NASELLA PULCHRA	PURPLE NEEDLEGRASS	LOW	1 GAL
DIETES BICOLOR	FORTNIGHT LILY	LOW	1 GAL	NEPETA FAASSENII	CATMINT	LOW	1 GAL
ERIGERON KARVINKIANUS	SANTA BARBARA DAISY	LOW	1 GAL	ROSA CALIFORNICA	CALIFORNIA WILD ROSE	LOW	1 GAL
EUONYMUS J. 'GREEN SPIRE'	GREEN SPIRE EUONYMUS	MED	1 GAL	SALVIA CLEVELANDII	CLEVELAND SAGE	LOW	1 GAL
FESTUCA GLAUCA	BLUE FESCUE	LOW	1 GAL	SANTOLINA SPP.	SANTOLINA	LOW	1 GAL
GREVILLEA 'NOELLI'	WOOLY GREVILLEA	LOW	5 GAL	SIYRINCHUM BELLUM	BLUE-EYED GRASS	LOW	1 GAL
HELICTOTRICHON SEMPERVIRENS	WOLLY GREVILLEA	LOW	5 GAL	STACHYS SPP.	LAMBS EAR	MED	1 GAL
LANTANA MONTEVIDENSIS	TRAILING LANTANA	LOW	1 GAL	TRICHOSTEMA SPP.	WOOLY BLUE CURLS	LOW	1 GAL
LAVANDULA A. 'MUNSTEAD'	ENGLISH LAVENDER	LOW	1 GAL	GROUNDCOVERS			
LAVATERA MARITIMA	SEA MALLOW	LOW	5 GAL	APTENA 'RED APPLE'	APTENA	LOW	1 GAL
LOROPETALUM CHINENSE	CHINESE FRINGE FLOWER	MED	5 GAL	1 GALLON @ 60" O.C.			
MIMULUS 'VALENTINE'	MONKEY FLOWER	LOW	1 GAL	MYOPORUM PARVIFOLIUM	MYOPORUM	LOW	1 GAL
MUHLENBERGIA RIGENS	DEER GRASS	LOW	1 GAL	1 GALLON @ 60" O.C.			
MYRTUS COMMUNIS 'COMPACTA'	MYRTLE	LOW	5 GAL	ROSMARINUS O. 'PROSTRATUS'	ROSEMARY	LOW	1 GAL
NANDINA D. 'COMPACTA'	DWARF HEAVENLY BAMBOO	LOW	1 GAL	1 GALLON @ 60" O.C.			
OLEA E. 'LITTLE OLLIE'	DWARF OLIVE	LOW	5 GAL				
PENSTEMON HET. 'MARGARITA BOP'	FOOTHILL PENSTEMON	LOW	1 GAL				
PHORMIUM TENAX	NEW ZEALAND FLAX	LOW	5 GAL				
RHAMNUS CALIFORNICA	COFFEEBERRY	LOW	5 GAL				
RHAPHIOLEPIS UMBELLATA MINOR	YEDDA HAWTHORN	LOW	5 GAL				
ROSMARINUS O. 'TUSCAN BLUE'	ROSEMARY	LOW	1 GAL				
SALVIA GREGGII 'ALBA'	AUTUMN SAGE	LOW	1 GAL				
SALVIA LEUCANTHA	MEXICAN SAGE	LOW	1 GAL				
SOLANUM JASMINOIDES	POTATO VINE (VINE)	LOW	5 GAL				
TULBAGHIA VIOLACEA	SOCIETY GARLIC	LOW	1 GAL				
WESTRINGIA 'WYNYABBIE HIGHLIGHT'	WESTRINGIA	LOW	1 GAL				
XYLOSMA C. 'COMPACTA'	COMPACT XYLOSMA	LOW	5 GAL				

REVISIONS

DATE	SYMBOL	DESCRIPTION

DRAWING RELEASE

DESCRIPTION	DATE
PRELIMINARY REVIEW	09/25/2019
INITIAL PLAN REVIEW	
PERMIT ISSUANCE	
NO DOCUMENTS	
FINAL CONSTRUCTION	

LANDSCAPE IMPROVEMENTS
EDGEWOOD COMMERCIAL DEVELOPMENT
 501 HILST CANYON
 MIDDLEFIELD ROAD | CORRAL HOLLOW ROAD
 TRACY, CALIFORNIA 95331

RIPLEY DESIGN GROUP, INC.

DESIGN

CREATED



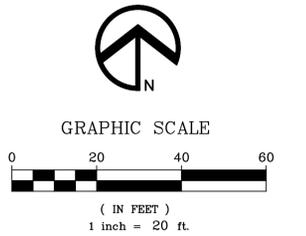
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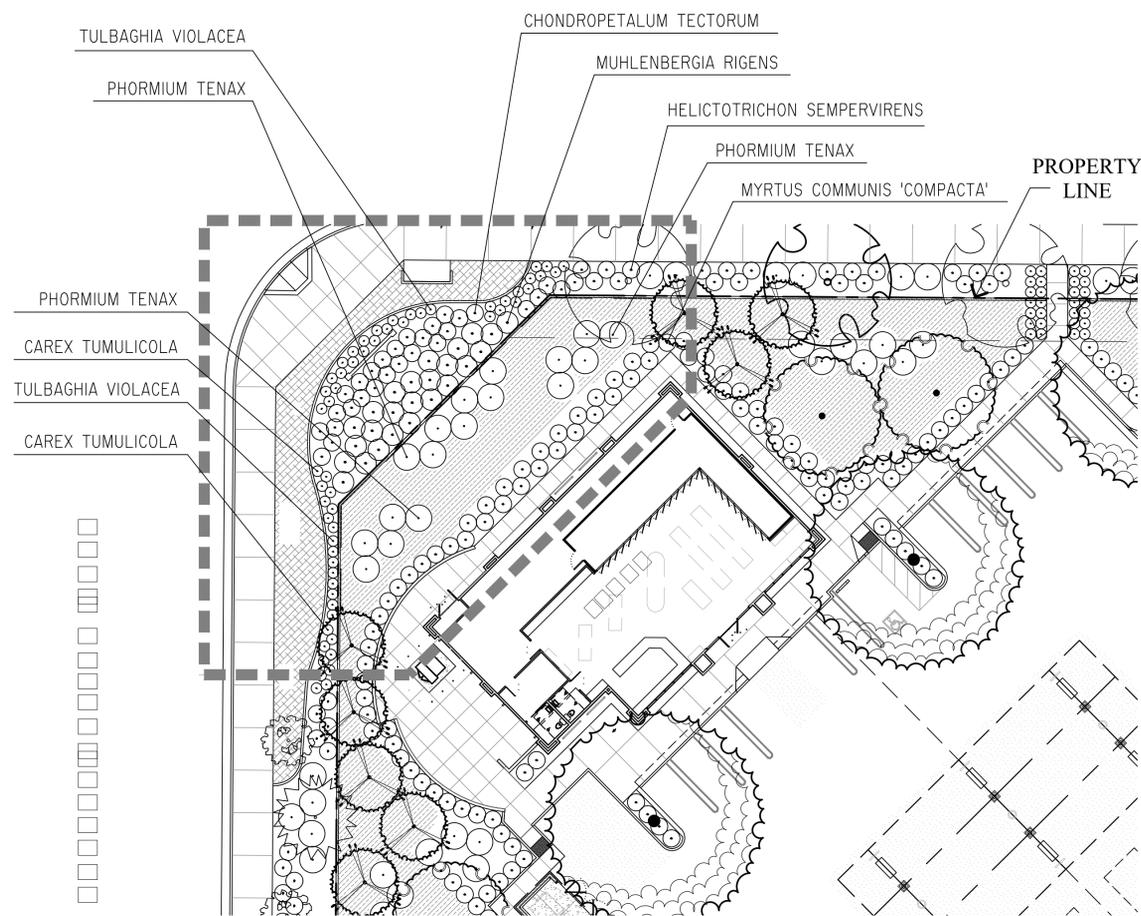
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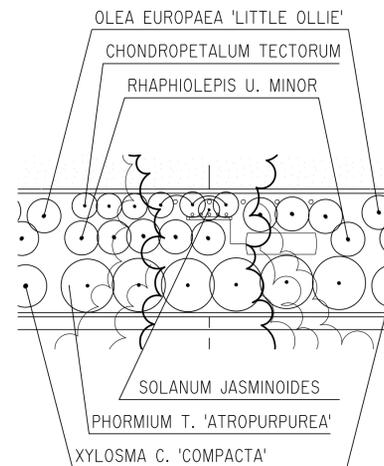
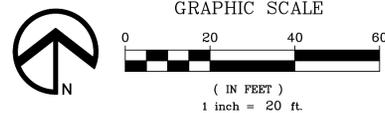
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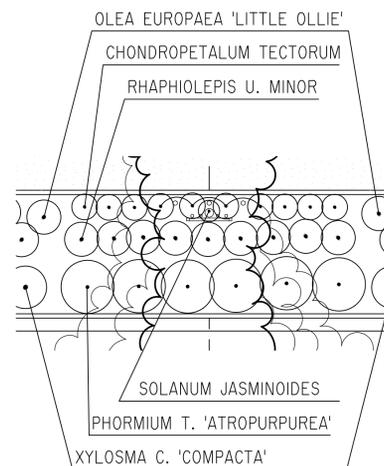
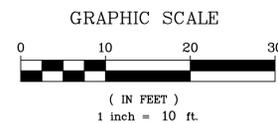




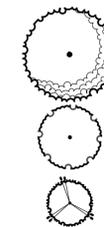
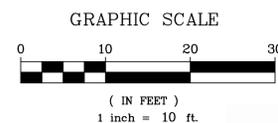
PROPOSED LANDSCAPE AT ENTRY



PLANTING AT EVR UNIT - TYPE A



PLANTING AT EVR UNIT - TYPE B



PRELIMINARY PROPOSED TREE PALETTE

BOTANICAL NAME	COMMON NAME	SIZE	WIDTH	WATER USE
STREET TREES				
ZELKOVA S. 'VILLAGE GREEN'	JAPANESE ZELKOVA	24" BOX	50' WIDE	MEDIUM
SCREENING TREES				
LAURUS NOBILIS	SWEET BAY	15 GAL	30' WIDE	LOW
OLEA EUROPAEA 'SWAN HILL'	SWAN HILL OLIVE	15 GAL	30' WIDE	LOW
PISTACIA CHINENSIS	CHINESE PISTACHE	15 GAL	30' WIDE	LOW
ACCENT TREES				
LAGERSTROEMIA I. 'TUSCARORA'	GRAPE MYRTLE	15 GAL	15' WIDE	LOW

PRELIMINARY PROPOSED PLANT PALETTE

BOTANICAL NAME	COMMON NAME	WATER USE	SIZE
SHRUBS & VINES			
ACACIA REDOLENS	PROSTRATE ACACIA	LOW	5 GAL
BUDDLEJA DAVIDII	BUTTERFLY BUSH	MED	1 GAL
CAREX TUMULICOLA	FOOTHILL SEDGE	LOW	1 GAL
CISTUS X 'SKANBERGII'	PINK ROCKROSE	LOW	1 GAL
CHONDRPETALUM TECTORUM	CAPE RUSH	LOW	1 GAL
DIETES BICOLOR	FORTNIGHT LILY	LOW	1 GAL
ERIGERON KARVINSKIANUS	SANTA BARBARA DAISY	LOW	1 GAL
EUONYMUS J. 'GREEN SPIRE'	GREEN SPIRE EUONYMUS	MED	1 GAL
FESTUCA GLAUCA	BLUE FESCUE	LOW	1 GAL
GREVILLEA 'NOELLI'	WOOLLY GREVILLEA	LOW	5 GAL
HELICTOTRICHON SEMPERVIRENS	BLUE OAT GRASS	MED	1 GAL
LANTANA MONTEVIDENSIS	TRAILING LANTANA	LOW	1 GAL
LAVANDULA A. 'MUNSTEAD'	ENGLISH LAVENDER	LOW	1 GAL
LAVATERA MARITIMA	SEA MALLOW	LOW	5 GAL
LOROPETALUM CHINENSE	CHINESE FRINGE FLOWER	MED	5 GAL
MIMULUS 'VALENTINE'	MONKEY FLOWER	LOW	1 GAL
MUHLENBERGIA RIGENS	DEER GRASS	LOW	1 GAL
MYRTUS COMMUNIS 'COMPACTA'	MYRTLE	LOW	5 GAL
NANDINA D. 'COMPACTA'	DWARF HEAVENLY BAMBOO	LOW	1 GAL
OLEA E. 'LITTLE OLLIE'	DWARF OLIVE	LOW	5 GAL
PENSTEMON HET. 'MARGARITA BOP'	FOOTHILL PENSTEMON	LOW	1 GAL
PHORMIUM TENAX	NEW ZEALAND FLAX	LOW	5 GAL
RHAMNUS CALIFORNICA	COFFEEBERRY	LOW	5 GAL
RHAPHIOLEPIS UMBELLATA MINOR	YEDDA HAWTHORN	LOW	5 GAL
ROSMARINUS O. 'TUSCAN BLUE'	ROSEMARY	LOW	1 GAL
SALVIA GREGGII 'ALBA'	AUTUMN SAGE	LOW	1 GAL
SALVIA LEUCANTHA	MEXICAN SAGE	LOW	1 GAL
SOLANUM JASMINOIDES	POTATO VINE (VINEY)	LOW	5 GAL
TULBAGHIA VIOLACEA	SOCIETY GARLIC	LOW	1 GAL
WESTRINGIA 'WYNYABBIE HIGHLIGHT'	WESTRINGIA	LOW	1 GAL
XYLOSMA C. 'COMPACTA'	COMPACT XYLOSMA	LOW	5 GAL
BIORETENTION BASIN SHRUBS			
BUDDLEJA DAVIDII	BUTTERFLY BUSH	MED	1 GAL
IRIS DOUGLASIANA	PACIFIC COAST IRIS	LOW	1 GAL
JUNCUS PATENS	CALIFORNIA RUSH	MED	1 GAL
MUHLENBERGIA RIGENS	DEERGRASS	LOW	1 GAL
NAPELLA PULCHRA	PURPLE NEEDLEGRASS	LOW	1 GAL
NEPETA FAASSENII	CATMINT	LOW	1 GAL
ROSA CALIFORNICA	CALIFORNIA WILD ROSE	LOW	1 GAL
SALVIA CLEVELANDII	CLEVELAND SAGE	LOW	1 GAL
SANTOLINA SPP.	SANTOLINA	LOW	1 GAL
SISYRINCHIUM BELLUM	BLUE-EYED GRASS	LOW	1 GAL
STACHYS SPP.	LAMBS EAR	MED	1 GAL
TRICHOSTEMA SPP.	WOOLLY BLUE CURLS	LOW	1 GAL
GROUNDCOVERS			
APTENA 'RED APPLE'	APTENA	LOW	1 GAL
1 GALLON @ 60" O.C.			
MYOPORUM PARVIFOLIUM	MYOPORUM	LOW	1 GAL
1 GALLON @ 60" O.C.			
ROSMARINUS O. 'PROSTRATUS'	ROSEMARY	LOW	1 GAL
1 GALLON @ 60" O.C.			



REVISIONS

DATE	SYMBOL	DESCRIPTION

DRAWING RELEASE

DESCRIPTION	DATE
PRELIMINARY REVIEW	09/25/2019
INITIAL PLAN REVIEW	
PERMIT ISSUANCE	
IFD DOCUMENTS	
FINAL CONSTRUCTION	

LANDSCAPE IMPROVEMENTS
EDGEWOOD COMMERCIAL DEVELOPMENT

80 HILFEY CANYON
MIDDLEFIELD ROAD | CORRAL HOLLOW ROAD
TRACY, CALIFORNIA 95377

RIPLLEY DESIGN GROUP, INC.

RIPLLEY DESIGN GROUP, INC.

DATE: _____
DRAWN BY: _____
CHECKED BY: _____
JOB NO: _____

LICENCED LANDSCAPE ARCHITECT

ANNIKA M. CARPENTIER
3684

DATE: 01-22-2020

State of California

□ □ □ □ □



ACACIA REDOLENS



BUDDLEJA DAVIDII



CAREX TUMULICOLA



CHONDROPETALUM TECTORUM



CISTUS X 'SKANBERGII'



DIETES BICOLOR



ERIGERON KARVINSKIANUS



EUONYMUS J. 'GREEN SPIRE'



FESTUCA GLAUCA



GREVILLEA 'NOELLI'



HELICTOTRICHON SEMPERVIRENS



LANTANA MONTEVIDENSIS



LAVANDULA A. 'MUNSTEAD'

DATE	SYMBOL	REVISIONS

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DESCRIPTION	DATE
PRELIMINARY REVIEW	09/25/2019
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BID DOCUMENTS	
FINAL CONSTRUCTION	

LANDSCAPE IMPROVEMENTS
EDGEWOOD COMMERCIAL DEVELOPMENT
 80 FINEST CORNER
 MIDDLEFIELD ROAD / CORRAL HOLLOW ROAD
 TRACY, CALIFORNIA 95311

RIPLEY DESIGN GROUP, INC.

DESIGN

RIPLEY DESIGN GROUP, INC.



DATE: □ □ □ □ □ □

DRAWN BY: □ □

CHECKED BY: M □

JOB NO: □ □

OF 7 SHEETS



LAVATERA MARITIMA



LOROPETALUM CHINENSE



MIMULUS 'VALENTINE'



MUHLENBERGIA RIGENS



MYRTUS COMMUNIS 'COMPACTA'



NANDINA D. 'COMPACTA'



OLEA E. 'LITTLE OLLIE'



PENSTEMON HET. 'MARGARITA BOP'



PHORMIUM TENAX 'ATROPURPUREA'



RHAMNUS CALIFORNICA



RAPHIOLEPIS UMBELLATA MINOR



ROSMARINUS O. 'TUSCAN BLUE'



SALVIA GREGGII 'ALBA'

DATE	SYMBOL	REVISIONS

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DESCRIPTION	DATE
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<input type="checkbox"/> PERMIT ISSUANCE	
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<input type="checkbox"/> FINAL CONSTRUCTION	

LANDSCAPE IMPROVEMENTS
EDGEWOOD COMMERCIAL DEVELOPMENT
 80 N. HILST CARBET
 MIDDLEFIELD ROAD / CORRAL HOLLOW ROAD
 TRACY, CALIFORNIA 95371

RIPLY DESIGN GROUP, INC.

DESIGN

DATE: 01-22-2020

ANNA M. CARPENTER
 # 3684
 State of California

DATE:

DRAWN BY:

CHECKED BY: M

JOB NO:

OF 7 SHEETS



SALVIA LEUCANTHA



SOLANUM JASMINOIDES



WESTRINGIA 'WYNYABBIE HIGHLIGHT'



XYLOSMA CONGESTUM 'COMPACTA'



TULBAGHIA VIOLACEA



APTENA 'RED APPLE'



MYOPORUM PARVIFOLIUM



ROSMARINUS O. 'PROSTRATUS'



ZELKOVA S. 'VILLAGE GREEN'



LAGERSTROEMIA TUSCARORA



LAURUS NOBILIS



PISTACIA CHINENSIS



OLEA EUROPAEA 'SWAN HILL'

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DATE	SYMBOL	REVISIONS

DRAWING RELEASE	
DESCRIPTION	DATE
PRELIMINARY REVIEW	09/25/2019
INITIAL PLAN REVIEW	
PERMIT ISSUANCE	
BID DOCUMENTS	
FINAL CONSTRUCTION	

LANDSCAPE IMPROVEMENTS
EDGEWOOD COMMERCIAL DEVELOPMENT
 80 FINEST CORNER
 MIDDLEFIELD ROAD / CORRAL HOLLOW ROAD
 TRACY, CALIFORNIA 95317

RIPLY DESIGN GROUP, INC.

RIPLY DESIGN

CREATED LANDSCAPE ARCHITECT
 ANNA M. CARPENTER
 # 3684
 DENISE GONZALES
 01-22-2020
 State of California

DATE: □□□□□□

DRAWN BY: □□

CHECKED BY: M

JOB NO: □□

OF 7 SHEETS

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BUDDLEJA DAVIDII



IRIS DOUGLASIANA



JUNCUS PATENS



MUHLENBERGIA RIGENS



NASSELLA PULCHRA



NEPETA FAASSENII



ROSA CALIFORNICA



SALVIA CLEVELANDII



SANTOLINA



SISYRINCHIUM BELLUM



STACHYS SPP



TRICHOSTEMA LANATUM

DATE	SYMBOL	REVISIONS

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PRELIMINARY REVIEW	09/25/2019
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PERMIT ISSUANCE	
BID DOCUMENTS	
FINAL CONSTRUCTION	

LANDSCAPE IMPROVEMENTS
EDGEWOOD COMMERCIAL DEVELOPMENT
SOUTHEAST CORNER
MIDDLEFIELD ROAD & CORRAL HOLLOW ROAD
TRACY, CALIFORNIA 95311

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RIPLY DESIGN GROUP, INC.

DESIGN

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LICENSED LANDSCAPE ARCHITECT
ANNIKA M. CARPENTIER
3684
Danae Carpenter
01-22-2020
State of California

DATE: □□□□□□

DRAWN BY: □□

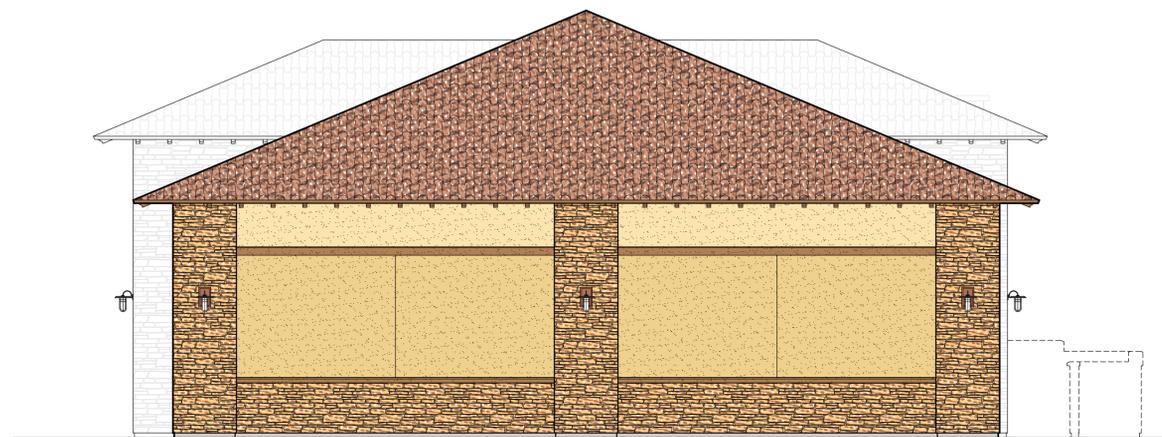
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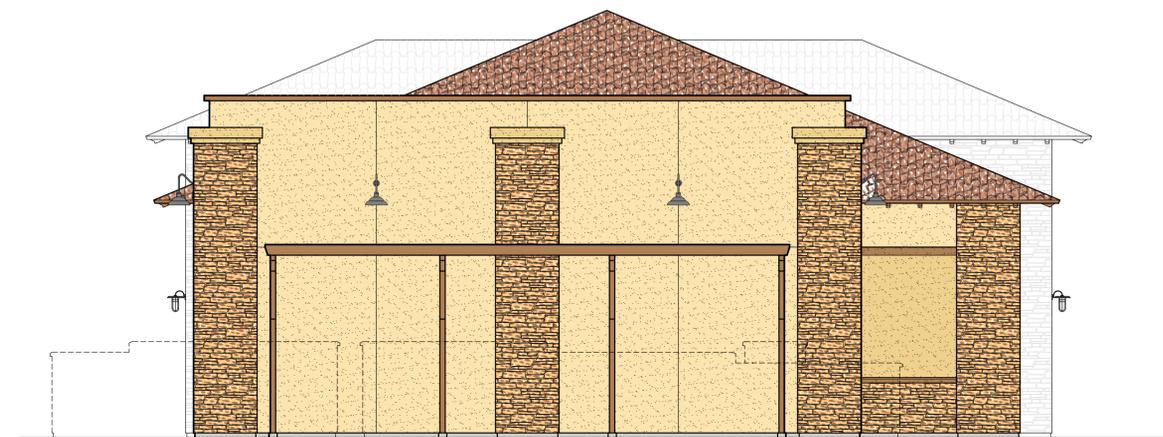
OF 7 SHEETS



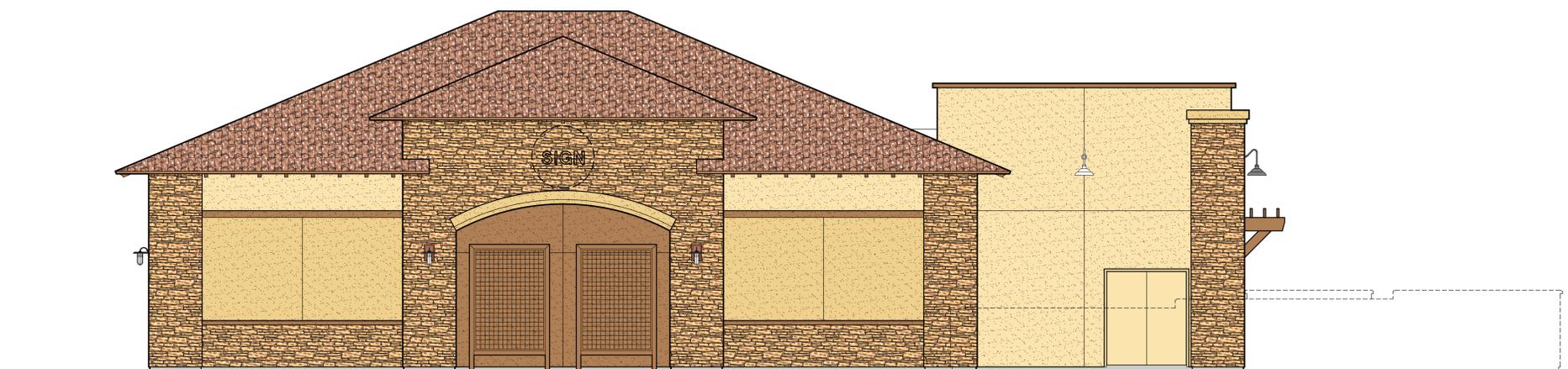
SOUTHEAST ELEVATION



NORTHEAST ELEVATION



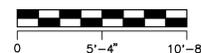
SOUTHWEST ELEVATION



NORTHWEST ELEVATION

CONVENIENCE STORE
 CONDITIONAL USE PERMIT
EXTERIOR ELEVATIONS

SCALE 3/8"=1'-0"



REVISIONS	DATE	SYMBOL

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DESCRIPTION	DATE
PRELIMINARY REVIEW	09/10/19
INITIAL PLAN REVIEW	09/30/19
PERMIT SUBMITTAL READY	
FINAL CONSTRUCTION	

CONDITIONAL USE PERMIT
 REZONE
Edgewood Commercial Development
 SOUTHEAST CORNER
 MIDDLEFIELD ROAD & CORRAL HOLLOW ROAD
 TRACY, CALIFORNIA 95371

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DATE:	09/06/19
DRAWN BY:	SFS
CHECKED BY:	SFS
JOB NO:	19.007

DR.4
 OF 11 SHEETS



ENVIRONMENTAL CHECKLIST

FOR THE

Edgewood Commercial Project

June 2020

Prepared for:

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

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 949-3231

D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm



ENVIRONMENTAL CHECKLIST

FOR THE

Edgewood Commercial PROJECT

June 2020

Prepared for:

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

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818

INTRODUCTION

The following pages provide an analysis of the proposed Edgewood Commercial (Project) with respect to the project's consistency with the City of Tracy General Plan, the analysis contained in the General Plan EIR, and any site-specific environmental impacts or cumulative impacts that may result from project implementation.

As explained in the following pages, the proposed project is consistent with the City's General Plan, for which an EIR was prepared and certified, and there are no site-specific or cumulative impacts associated with the proposed project that have not been fully addressed in a previous environmental document, or that cannot be mitigated to a less-than-significant level through the application of uniformly applied development policies and/or standards. The findings presented below demonstrate that no additional environmental analysis is required under the California Environmental Quality Act (CEQA) prior to approval of the proposed project.

PROJECT OVERVIEW

PROJECT LOCATION

The project site consists of a vacant 10.29-acre parcel located southeast of the intersection of Corral Hollow Road and Middlefield Drive in the City of Tracy. The project site is located on Assessor Parcel Number (APN) 248-180-13. The project's location is shown in Figure 1.

PROJECT DESCRIPTION

The proposed project would include the development of a 3,884 square foot (sf) convenience store and 2,880 sf fueling island, consisting of 12 gas pumps and four below grade fuel tanks, on approximately 2.44-acres in the northwest corner of the 10.29-acre project site. In addition, the proposed project would include a rezone of the entire 10.29-acre parcel from Planned Unit Development (PUD) to Neighborhood Shopping (NS). Figure 2 displays the proposed site plan. It should be noted that future site development may occur in additional phases; however, the future phases are not proposed at this time and will require a separate development review process(es).

The proposed project would include the removal of the existing subdivision sign and trees at the northwest corner of the project site, directly southeast of the intersection of Corral Hollow Road and Middlefield Drive. The proposed project would also remove the existing on-site screenwall located adjacent to the subdivision and construct a new six-foot screenwall adjacent to the proposed convenience store, extending the screenwall along a portion of the adjacent roadways. Landscaping and parking would be provided throughout the 2.44-acre portion of the project site currently proposed for development.

Access to the convenience store and fueling island would be provided by an existing driveway located on Corral Hollow Road, along the western boundary of the site, and by an existing driveway located on Middlefield Drive, along the northern boundary of the site connected via a new southwest to northeast internal roadway, as shown on Figure 2. A total of 26 automobile parking spaces would be provided. 12 standard vehicle parking spaces and one accessible parking space are proposed along the convenience store frontage and six standard vehicle

parking spaces and seven electric vehicle charging parking stalls are proposed in a separate parking area located directly north of the proposed site access off Corral Hollow Road.

Three freeform bio-retention areas would be provided in the three landscaped areas adjacent to the fueling island and directly north of the driveway off Corral Hollow Drive. The freeform bio-retention areas would be designed and installed per the City of Tracy “Multi-Agency Post-Construction Standards Manual.” The freeform bio-retention areas would drain via a proposed 12-inch storm drain (SD) pipeline running beneath the internal roadway and connecting to a proposed 18-inch SD pipeline. The proposed 18-inch storm drain pipeline would connect to the existing storm drain inlet on Middlefield Drive.

An existing eight-inch diameter water distribution stub is located in Middlefield Drive adjacent to the proposed driveway. The project proposes to connect to the existing water system installing a domestic water meter/service lateral to serve the proposed convenience store and one water stub for future development, as well as a water meter/service lateral for irrigation to serve the landscaping.

An existing eight-inch diameter sewer main is located in Middlefield Drive adjacent to the project site. The project proposes to connect to the eight-inch diameter sewer main, install a sanitary sewer manhole, and extend the sewer system via a proposed six-inch sanitary sewer pipeline to serve the site.

EXISTING SITE USES

The project site is currently vacant and undeveloped with various trees located along the right-of-way on Corral Hollow Road and Middlefield Drive. A subdivision sign and six-foot-tall screenwall exists at the northwest corner of the project site. No structures are located on-site. Figure 3 shows an aerial of the project site.

SURROUNDING LAND USES

The surrounding area includes single-family residential neighborhoods to the north and east (General Plan designation of Residential Low), a multi-family apartment building complex (Waterstone Apartments) to the north of the project site, past Middlefield Drive (General Plan designation of Residential High), and vacant land (General Plan designation of Commercial) and a single-family subdivision (General Plan designation of Residential Traditional) to the west across South Corral Hollow Road. A variety of industrial buildings (General Plan designation of Industrial) exist just to the south of the site, beyond the Union Pacific railroad (UPRR) track and Linne Road. The UPRR track is an active line, serving Altamont Commuter Express (ACE) users daily. The Tracy Municipal Airport (General Plan designation of Public Facilities) is also located south of project site, beyond the existing industrial area. An elementary school (Anthony Traina Elementary) is located approximately 750 yards (0.4 miles) to the northeast. There is also a small park containing a tennis court and a jungle gym immediately adjacent to the east (Don Cose Park).

GENERAL PLAN AND ZONING DESIGNATIONS

The City of Tracy General Plan land use designation for the project site is Commercial (consistent with the proposed project) and the project site is currently zoned PUD on the City of Tracy Zoning

Map. The Commercial (C) land use designation, as described in the Tracy General Plan Land Use Element, 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 passthrough travelers. Specific uses allowed in the Commercial land use designation include grocery and convenience stores, auto service stations, salons, restaurants, and fast-food establishments to name a few. According to the City's General Plan, Commercial parcels may have a maximum floor-area ration (FAR) of 1.0. The proposed project's average FAR would be approximately 0.063, consistent with the City's General Plan.

As previously noted, the proposed project would include a rezone of the 10.29-acre parcel from PUD to NS, which would focus the uses on-site and implement the site's Commercial land use designation. Changing the parcel's zoning from PUD to NS would not result in any new or intensified development; thus, the rezone to NS is consistent with the previous analysis contained in the General Plan EIR. The purpose of the Neighborhood Shopping zone, as described in the City of Tracy Municipal Code, is to provide goods and services to the residents of the surrounding area. Specific uses allowed in the NS zone include institutional and recreational uses serving local residents, retail trade establishments and convenience goods. NS uses are not ordinarily considered detrimental to a residential zone because of traffic, noise, or other nuisance factors. The proposed fuel station and convenience store are allowed uses within the NS zone, and require a Conditional Use Permit (CUP). Figure 4 also displays the existing and proposed zoning designation for the project site and the existing zoning of the surrounding area.

REQUESTED ENTITLEMENTS AND OTHER APPROVALS

The City of Tracy is the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of CEQA (Guidelines Section 15050).

This document will be used by the City of Tracy to take the following actions:

- Rezone from PUD to Neighborhood Shopping Zone.
- Conditional Use Permit.
- Adoption of the CEQA Exemption (Guidelines Section 15183).
- Development Review Permit.
- Development of Conditions of Approval (COA).

The following agencies may be required to issue permits or approve certain aspects of the proposed project:

- Central Valley Regional Water Quality Control Board (CVRWQCB) - Storm Water Pollution Prevention Plan (SWPPP) approval prior to construction activities.
- San Joaquin Valley Air Pollution Control District (SJVAPCD) - Approval of construction-related air quality permits.
- San Joaquin Council of Governments (SJCOG) - Review of project application to determine consistency with the San Joaquin County Multi-Species Habitat, Conservation, and Open Space Plan (SJMSCP).

PREVIOUS ENVIRONMENTAL ANALYSES OF THE PROPOSED PROJECT

One previous environmental analysis has been prepared and certified which is applicable to the proposed project.

On February 1, 2011, the City adopted a new General Plan and certified the associated General Plan EIR (State Clearinghouse (SCH) # 2008092006). The proposed project would be consistent with the General Plan designation of Commercial, as described above. The General Plan EIR assumed full development and buildout of the project site, consistent with the uses and development standards proposed by the project. The cumulative impacts associated with buildout of the City of Tracy General Plan, including the project site, were fully addressed in the General Plan EIR.

CEQA GUIDELINES SECTION 15183 EXEMPTIONS

CEQA Guidelines Section 15183 allows a streamlined environmental review process for projects that are consistent with the densities established by existing zoning, community plan or general plan policies for which an Environmental Impact Report (EIR) was certified. As noted above, the proposed project is consistent with the land use designation and densities established by the Tracy General Plan, for which an EIR was certified. The provisions contained in Section 15183 of the CEQA Guidelines are presented below.

15183. Projects Consistent with a Community Plan or Zoning

(a) CEQA mandates that projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. This streamlines the review of such projects and reduces the need to prepare repetitive environmental studies.

(b) In approving a project meeting the requirements of this section, a public agency shall limit its examination of environmental effects to those which the agency determines, in an initial study or other analysis:

- (1) Are peculiar to the project or the parcel on which the project would be located,*
- (2) Were not analyzed as significant effects in a prior EIR on the zoning action, general plan, or community plan, with which the project is consistent,*
- (3) Are potentially significant off-site impacts and cumulative impacts which were not discussed in the prior EIR prepared for the general plan, community plan or zoning action,*
or
- (4) Are previously identified significant effects which, as a result of substantial new information which was not known at the time the EIR was certified, are determined to have a more severe adverse impact than discussed in the prior EIR.*

(c) If an impact is not peculiar to the parcel or to the project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied

development policies or standards, as contemplated by subdivision (e) below, then an additional EIR need not be prepared for the project solely on the basis of that impact.

(d) This section shall apply only to projects which meet the following conditions:

(1) The project is consistent with:

- (A) A community plan adopted as part of a general plan,*
- (B) A zoning action which zoned or designated the parcel on which the project would be located to accommodate a particular density of development, or*
- (C) A general plan of a local agency, and*

(2) An EIR was certified by the lead agency for the zoning action, the community plan, or the general plan.

(e) This section shall limit the analysis of only those significant environmental effects for which:

(1) Each public agency with authority to mitigate any of the significant effects on the environment identified in the planning or zoning action undertakes or requires others to undertake mitigation measures specified in the EIR which the lead agency found to be feasible, and

(2) The lead agency makes a finding at a public hearing as to whether the feasible mitigation measures will be undertaken.

(f) An effect of a project on the environment shall not be considered peculiar to the project or the parcel for the purposes of this section if uniformly applied development policies or standards have been previously adopted by the City or county with a finding that the development policies or standards will substantially mitigate that environmental effect when applied to future projects, unless substantial new information shows that the policies or standards will not substantially mitigate the environmental effect. The finding shall be based on substantial evidence which need not include an EIR. Such development policies or standards need not apply throughout the entire City or county, but can apply only within the zoning district in which the project is located, or within the area subject to the community plan on which the lead agency is relying. Moreover, such policies or standards need not be part of the general plan or any community plan, but can be found within another pertinent planning document such as a zoning ordinance. Where a City or county, in previously adopting uniformly applied development policies or standards for imposition on future projects, failed to make a finding as to whether such policies or standards would substantially mitigate the effects of future projects, the decision-making body of the City or county, prior to approving such a future project pursuant to this section, may hold a public hearing for the purpose of considering whether, as applied to the project, such standards or policies would substantially mitigate the effects of the project. Such a public hearing need only be held if the City or county decides to apply the standards or policies as permitted in this section.

(g) Examples of uniformly applied development policies or standards include, but are not limited to:

(1) Parking ordinances.

- (2) Public access requirements.*
- (3) Grading ordinances.*
- (4) Hillside development ordinances.*
- (5) Flood plain ordinances.*
- (6) Habitat protection or conservation ordinances.*
- (7) View protection ordinances.*
- (8) Requirements for reducing greenhouse gas emissions, as set forth in adopted land use plans, policies, or regulations.*

(h) An environmental effect shall not be considered peculiar to the project or parcel solely because no uniformly applied development policy or standard is applicable to it.

(i) Where the prior EIR relied upon by the lead agency was prepared for a general plan or community plan that meets the requirements of this section, any rezoning action consistent with the general plan or community plan shall be treated as a project subject to this section.

(1) "Community plan" is defined as a part of the general plan of a City or county which applies to a defined geographic portion of the total area included in the general plan, includes or references each of the mandatory elements specified in Section 65302 of the Government Code, and contains specific development policies and implementation measures which will apply those policies to each involved parcel.

(2) For purposes of this section, "consistent" means that the density of the proposed project is the same or less than the standard expressed for the involved parcel in the general plan, community plan or zoning action for which an EIR has been certified, and that the project complies with the density-related standards contained in that plan or zoning. Where the zoning ordinance refers to the general plan or community plan for its density standard, the project shall be consistent with the applicable plan.

(j) This section does not affect any requirement to analyze potentially significant offsite or cumulative impacts if those impacts were not adequately discussed in the prior EIR. If a significant offsite or cumulative impact was adequately discussed in the prior EIR, then this section may be used as a basis for excluding further analysis of that offsite or cumulative impact.

PROJECT-SPECIFIC ENVIRONMENTAL REVIEW

The attached Environmental Checklist includes a discussion and analysis of any peculiar or site-specific environmental impacts associated with construction and operation of the proposed project. The Environmental Checklist identifies the applicable City of Tracy development standards and policies that would apply to the proposed project during both the construction and operational phases, and explains how the application of these uniformly applied standards and policies would ensure that no peculiar or site-specific environmental impacts would occur.

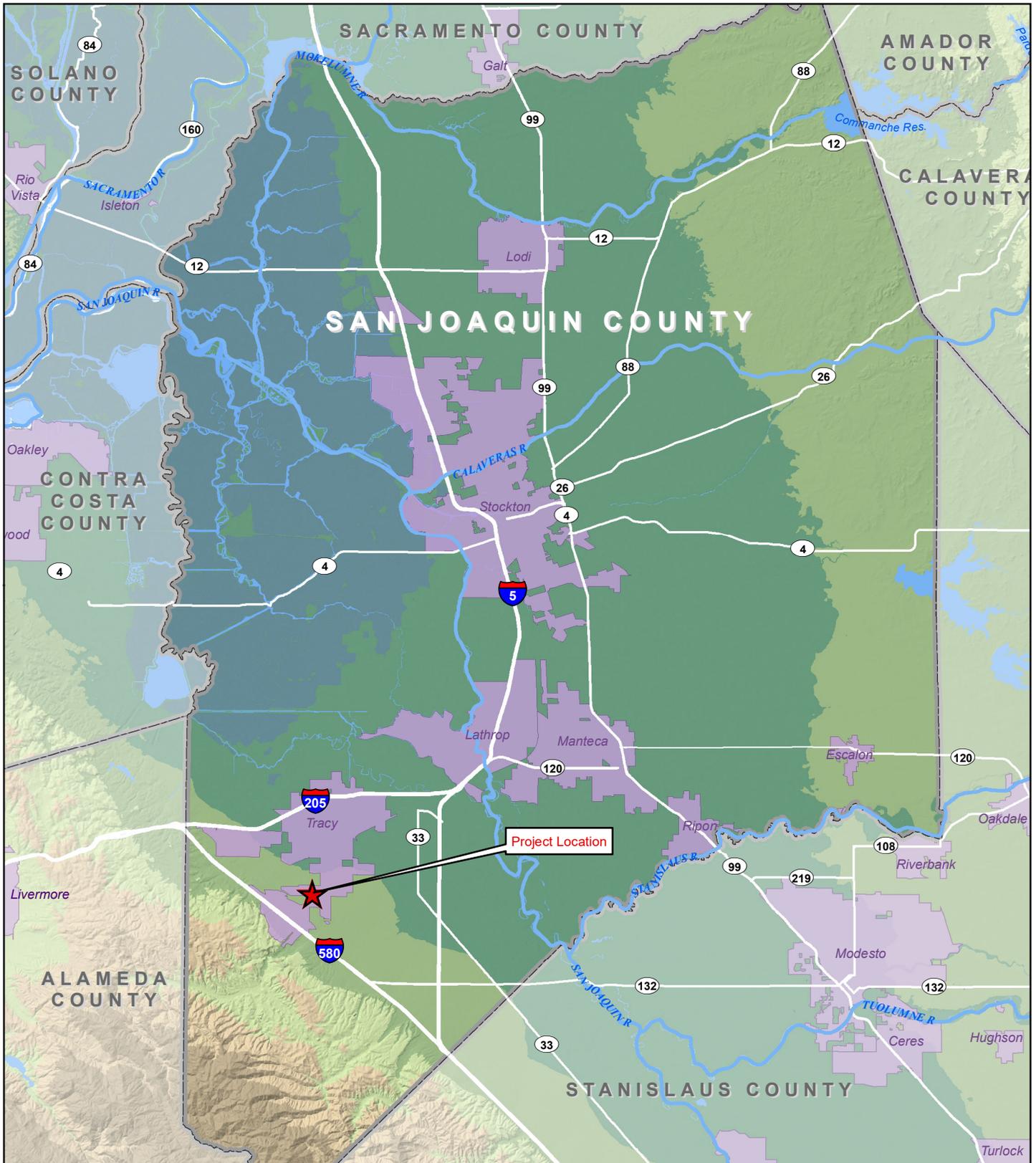
CONCLUSION

As described above, the proposed Edgewood Commercial (project) is consistent with the land use designations and development intensities assigned to the project site by the City of Tracy General Plan. Cumulative impacts associated with development and buildout of the project site,

as proposed, were fully addressed in the City of Tracy General Plan EIR (SCH# 2008092006). Since the proposed project is consistent with the land use designation and development intensity for the site identified in the General Plan and analyzed in the General Plan EIR, implementation of the proposed project would not result in any new or altered cumulative impacts beyond those addressed in the General Plan EIR.

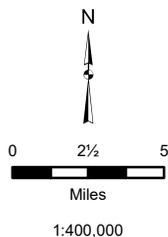
The analysis in the attached CEQA Environmental Checklist demonstrates that there are no site-specific or peculiar impacts associated with the project, and identifies uniformly applied standards and policies that would be applied to the project. The Project Requirements identified in the attached environmental analysis include requirements that must be implemented by the proposed project in order to ensure that any site-specific impacts or construction-related impacts are reduced to a less-than-significant level. All Project Requirements identified in the attached Environmental Checklist shall be made a condition of project approval and shall be implemented within the timeframes identified.

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Legend

-  Project Location
-  County Boundary
-  City Area

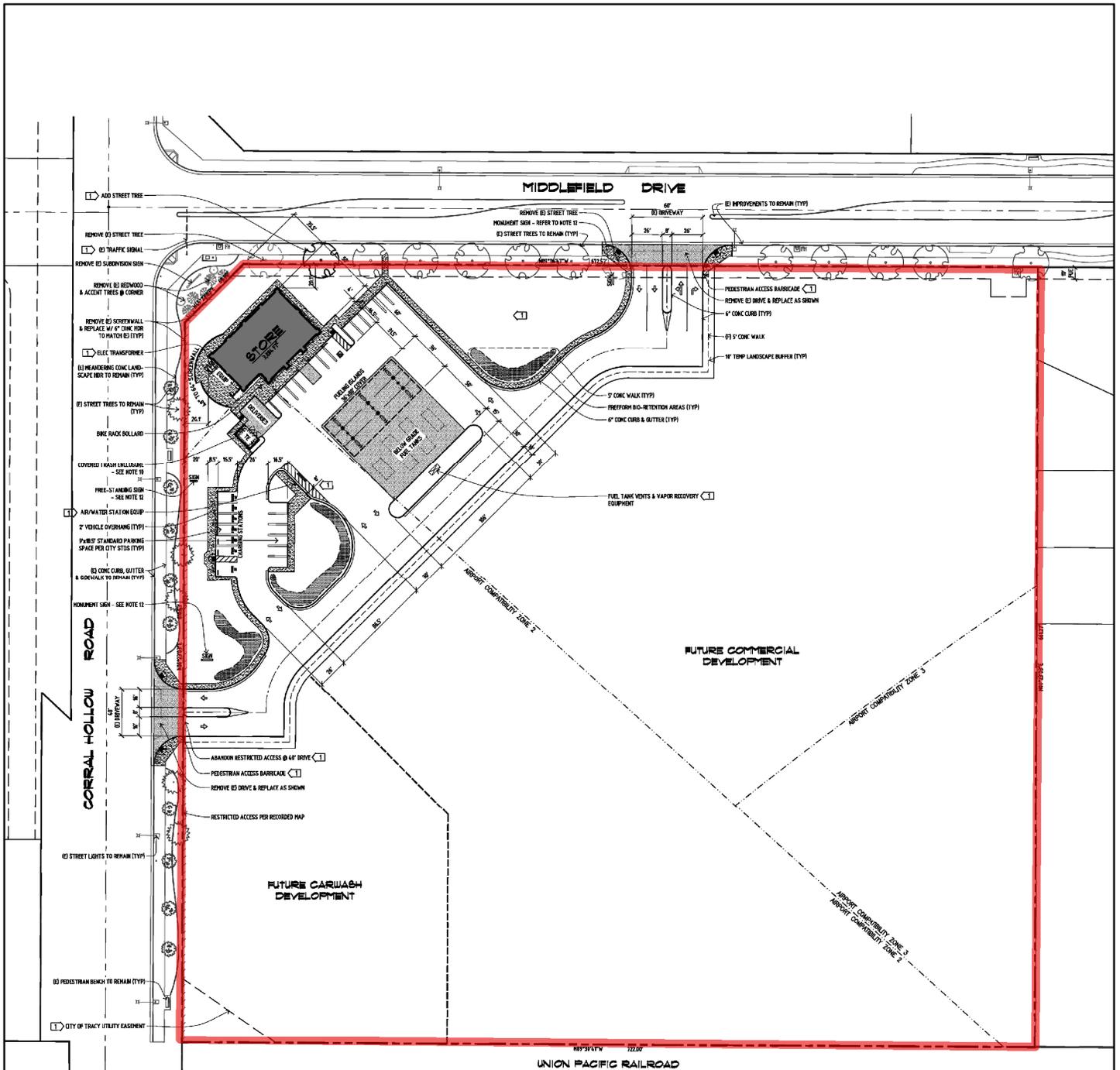


EDGEWOOD COMMERCIAL

Figure 1. Regional Location Map

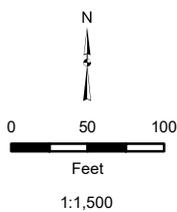
Sources: CalAtlas; San Joaquin, Stanislaus, Sacramento, Solano, Contra Costa, and Alameda Counties. Map date: December 20, 2019.

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Legend

 Project Boundary



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Figure 2. Site Plan

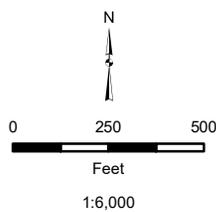
Sources: Schack & Company, Inc. 8/28/19;
San Joaquin County GIS. Map date: December 20, 2019.

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Legend

 Project Boundary

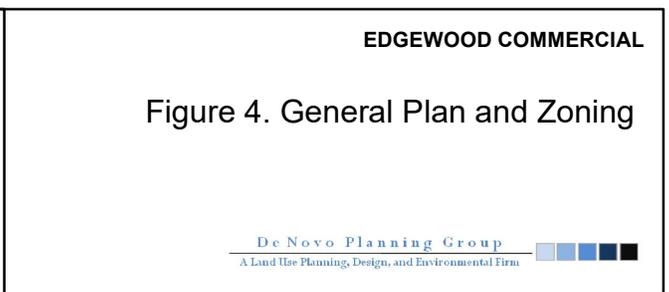
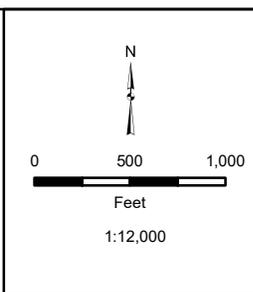
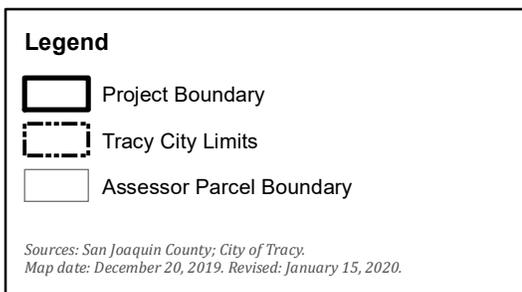
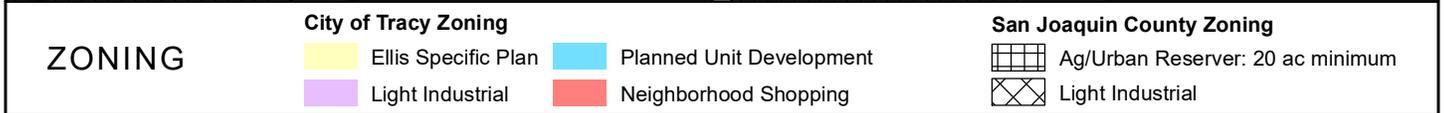
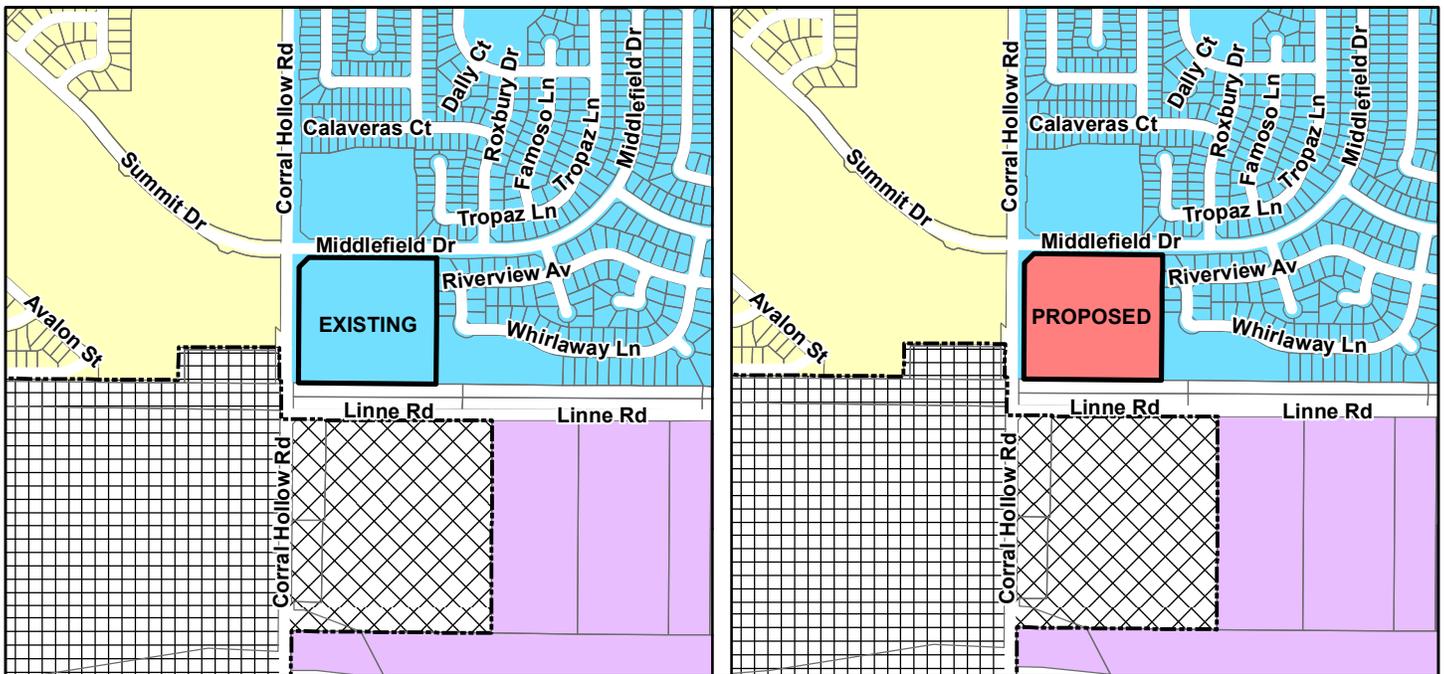
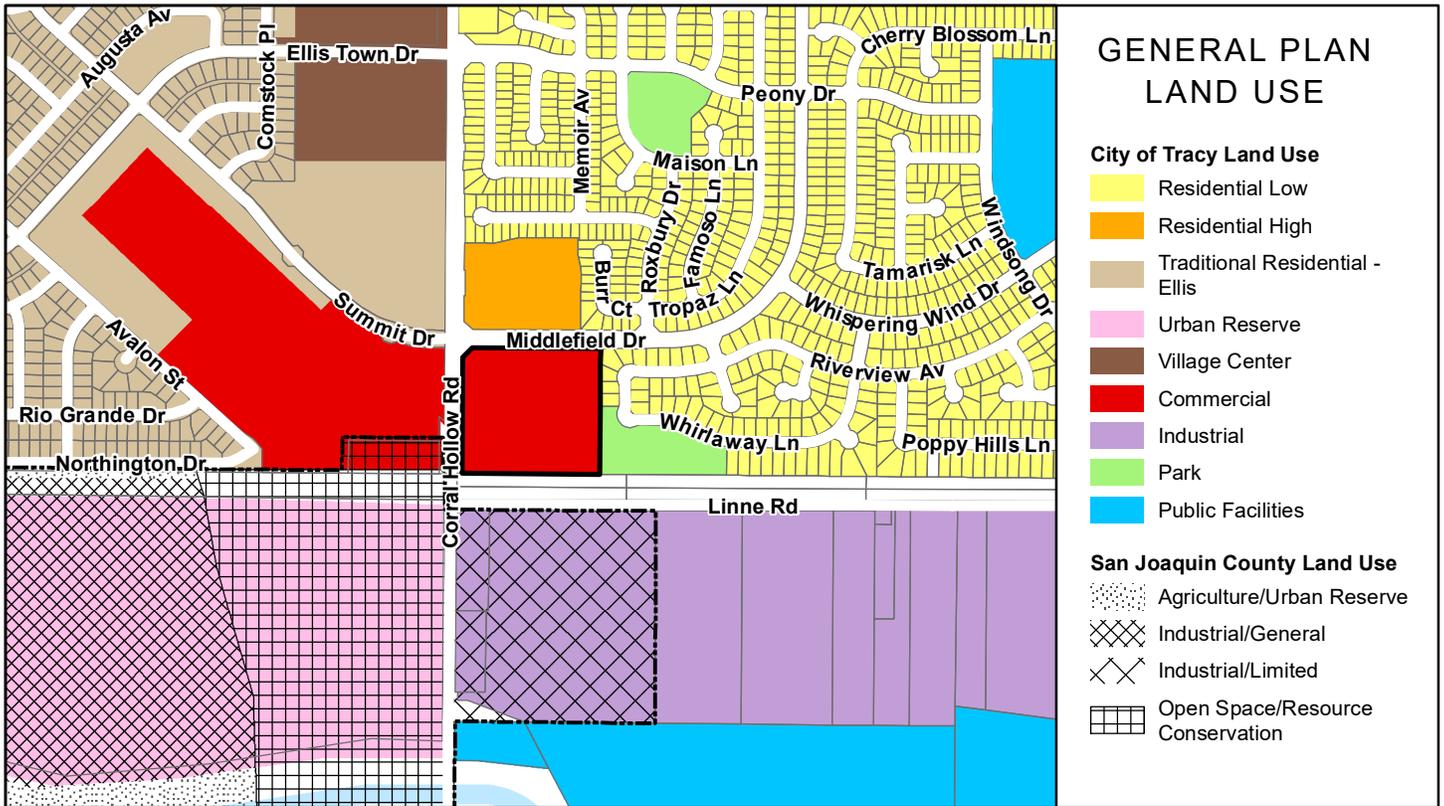


EDGEWOOD COMMERCIAL

Figure 3. Aerial View of Project Site

Sources: San Joaquin County GIS; ArcGIS Online World Imagery Map Service. Map date: December 20, 2019.

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ENVIRONMENTAL CHECKLIST

I. AESTHETICS -- WOULD THE PROJECT:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with the applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. There are no scenic vistas located on or adjacent to the project site. The proposed project is considered an infill project, and the proposed uses on the site are consistent and compatible with the surrounding land uses. The surrounding area includes single-family residential neighborhoods to the north, west, and east (General Plan designation of Residential Low and zoning of PUD), a multi-family apartment building to the north (General plan designation of Residential High and zoning of PUD), and the Tracy Municipal Airport bordering on the south (General Plan Designation of Public Facilities and zoning of Light Industrial). An elementary school (Anthony Traina Elementary) is located approximately 750 yards (0.4 miles) to the northeast. There is also a Union Pacific Railroad (UPRR) track along the southern boundary of the subject property, which provides regular Altamont Corridor Express (ACE) train service.

Implementation of the proposed project would provide for a commercial development to serve the surrounding neighborhoods on a project site that is bordered by similarly scaled development to the north, east, and south, as described above. The project site is not topographically elevated from the surrounding lands, and is not highly visible from areas beyond the immediate vicinity of the site. There are no prominent features on the site, such as trees, rock outcroppings, or other visually distinctive features that contribute to the scenic quality of the site. The project site is not designated as a scenic vista by the City of Tracy General Plan.

Implementation of the proposed project would not significantly change the existing visual character of the project area, as much of the areas immediately adjacent to the site to the north, west, and east are used for residential purposes, and lands to the south of the site are industrial in nature. The proposed site plan would place a six-foot screenwall at the northwest corner of the project site extending along the adjacent roadways to screen the convenience store. Additionally, the development would provide a visual screen and buffer between the existing industrial uses to the south and the existing residential uses to the north of the site.

Implementation of the proposed project would introduce new commercial development to the project area, and would be generally consistent with the surrounding residential and industrial development. Therefore, this impact is considered **less than significant**.

Response b): Less than Significant. As described in the Tracy General Plan EIR, there are two Officially Dedicated California Scenic Highway segments in the Tracy Planning Area, which extend a total length of 16 miles. The first designated scenic highway is the portion of Interstate (I) 580 between I-205 and I-5, which offers views of the Coast Range to the west and the Central Valley's urban and agricultural lands to the east. The second scenic highway is the portion of I-5 that starts at I-205 and continues south to Stanislaus County, which allows for views of the surrounding agricultural lands and the Delta-Mendota Canal and California Aqueduct.

The scenic portion of the I-580 highway runs approximately 1.5 miles from the project site (at its closest point, to the southwest). The project is not highly visible from this highway, blending into the surrounding existing land uses and terrain. Additionally, the project is not at all visible along any scenic section of I-5. Development of the proposed project would not result in the removal of any trees, rock outcroppings, or buildings of historical significance, and would not result in changes to any of the viewsheds from the designated scenic highways in the vicinity of the City of Tracy. Therefore, there is a **less than significant impact**.

Response c): Less than Significant. The proposed project would be visually compatible with the surrounding residential land uses and would not significantly degrade the existing visual quality of the site or the surrounding area. The project is consistent with the Commercial land use designation and will comply with City standards, including, but not limited to, the City's Design Goals and Standard Plans, which would ensure that the exterior facades of the proposed commercial structures, streetscape improvements and exterior lighting improvements are compatible with the surrounding land uses. This is a **less than significant impact**.

Response d): Less than Significant. Daytime glare can occur when the sunlight strikes reflective surfaces such as windows, vehicle windshields and shiny reflective building materials. The proposed project would introduce a new commercial structure and fueling station into the project site; however, reflective building materials are not proposed for use in the project, and as such, the project would not result in increases in daytime glare.

The proposed project would include exterior lighting around the structure, and landscaped areas within the site. The City of Tracy Standard Plan #140 establishes street light standards, and requirements for light illumination. The City addresses light and glare issues on a case-by-case

basis during project approval and typically adds requirements as a condition of project approval to shield and protect against light spillover from one property to the next. The implementation of City standards and requirements would reduce any impacts related to light and glare to a **less-than-significant** level.

Project Requirement(s)

Project Requirement 1: *A lighting plan shall be prepared in accordance with the City of Tracy Standard Plan #140 that establishes street light standards, and requirements for light illumination, and the Tracy Municipal Code, 10.08.4000 (a), which specifies that the site plan and architectural review package includes an exterior lighting standards and devices review. The lighting plan shall include the following:*

- *Design of site lighting and exterior building light fixtures to reduce the effects of light pollution and glare off of glass and metal surfaces;*
- *Lighting shall be directed downward and light fixtures shall be shielded to reduce upward and spillover lighting.*

II. AGRICULTURE AND FOREST RESOURCES: WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1222(g)) or timberland (as defined in Public Resources Code section 4526)?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

RESPONSES TO CHECKLIST QUESTIONS

Response a): No Impact. The project site is underlain by Zacharias clay loam, zero to two percent slopes, and Zacharias gravelly clay loam, zero to two percent slopes. While both soils are considered Prime Farmland soils if irrigated, the project site is designated as Urban and Built-up Land by the California Department of Conservation, Farmland Mapping and Monitoring Program and the USDA Soil Conservation Service.

The proposed project is identified for urban land uses in the Tracy General Plan, and the project is consistent with the uses established by the General Plan. Development of the site for urban uses and the corresponding conversion of agricultural land associated with buildout of the Tracy General Plan, including the project site, was taken into consideration in the City of Tracy General Plan and General Plan EIR. On February 1, 2011 the Tracy City Council adopted a Statement of Overriding Considerations (Resolution 2011-028) for the direct impacts to farmland resulting from adoption of the General Plan and EIR. As such, the project would have **no impact** related to this environmental topic.

Response b): No Impact. The project site is not under a Williamson Act Contract, nor are any of the parcels immediately adjacent to the project site under a Williamson Act Contract, or designated for agricultural uses. Therefore, implementation of the proposed project would not conflict with a Williamson Act Contract, and would not conflict with any agricultural zoning. As such, there is **no impact**.

Responses c) and d): No Impact. The project site is located in an urban area consisting of residential and industrial developments. There are no forest resources on the project site or in the immediate vicinity of the project site. Therefore, there is **no impact**.

Response e): No Impact. As described under Responses (a) and (b) above, the proposed project site is not currently designated or zoned for agricultural uses. The project site does not contain forest resources. There is **no impact** related to this environmental topic.

III. AIR QUALITY -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

EXISTING SETTING

The subject site is located in the City of Tracy and within the San Joaquin Valley Air Basin (SJVAB). This region has had chronic non-attainment of federal and state clean air standards for ozone/oxidants and particulate matter due to a combination of topography and climate. The San Joaquin Valley (Valley) is hemmed in on three sides by mountain ranges, with prevailing winds carrying pollutants and pollutant precursors from urbanized areas to the north (and in turn contributing pollutants and precursors to downwind air basins). The Mediterranean climate of this region, with a high number of sunny days and little or no measurable precipitation for several months of the year, fosters photochemical reactions in the atmosphere, creating ozone and particulate matter. Regional factors affect the accumulation and dispersion of air pollutants within the SJVAB.

Air pollutant emissions overall are fairly constant throughout the year, yet the concentrations of pollutants in the air vary from day to day and even hour to hour. This variability is due to complex interactions of weather, climate, and topography. These factors affect the ability of the atmosphere to disperse pollutants. Conditions that move and mix the atmosphere help disperse pollutants, while conditions that cause the atmosphere to stagnate allow pollutants to concentrate. Local climatological effects, including topography, wind speed and direction, temperature, inversion layers, precipitation, and fog can exacerbate the air quality problem in the SJVAB.

The SJVAB is approximately 250 miles long and averages 35 miles wide, and is the second largest air basin in the state. The SJVAB is defined by the Sierra Nevada in the east (8,000 to 14,000 feet in elevation), the Coast Ranges in the west (averaging 3,000 feet in elevation), and the Tehachapi mountains in the south (6,000 to 8,000 feet in elevation). The Valley is basically flat with a slight downward gradient to the northwest. The Valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay. The Valley, thus, could be considered a "bowl" open only to the north.

During the summer, wind speed and direction data indicate that summer wind usually originates at the north end of the Valley and flows in a south-southeasterly direction through the Valley, through Tehachapi pass, into the Southeast Desert Air Basin. In addition, the Altamont Pass also serves as a funnel for pollutant transport from the San Francisco Bay Area Air Basin into the region.

During the winter, wind speed and direction data indicate that wind occasionally originates from the south end of the Valley and flows in a north-northwesterly direction. Also, during the winter months, the Valley generally experiences light, variable winds (less than 10 mph). Low wind speeds, combined with low inversion layers in the winter, create a climate conducive to high carbon monoxide (CO) and particulate matter (PM10 and PM2.5) concentrations. The SJVAB has an “Inland Mediterranean” climate averaging over 260 sunny days per year. The Valley floor is characterized by warm, dry summers and cooler winters. For the entire Valley, high daily temperature readings in summer average 95°F. Temperatures below freezing are unusual. Average high temperatures in the winter are in the 50s, but highs in the 30s and 40s can occur on days with persistent fog and low cloudiness. The average daily low temperature is 45°F.

The vertical dispersion of air pollutants in the Valley is limited by the presence of persistent temperature inversions. Solar energy heats up the Earth’s surface, which in turn radiates heat and warms the lower atmosphere. Therefore, as altitude increases, the air temperature usually decreases due to increasing distance from the source of heat. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Inversions can exist at the surface or at any height above the ground, and tend to act as a lid on the Valley, holding in the pollutants that are generated here.

REGULATIONS

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is the local regional jurisdictional entity charged with attainment planning, rulemaking, rule enforcement, and monitoring under Federal and State Clean Air Acts and Clean Air Act Amendments. They do this through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues.

Activities of the SJVAPCD include the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the Federal Clean Air Act and California Clean Air Act.

The SJVAPCD has prepared the *2007 Ozone Plan* to achieve Federal and State standards for improved air quality in the SJVAB regarding ozone. The *2007 Ozone Plan* provides a comprehensive list of regulatory and incentive-based measures to reduce emissions of ozone and particulate matter precursors throughout the SJVAB. The *2007 Ozone Plan* calls for major advancements in pollution control technologies for mobile and stationary sources of air pollution.

The *2007 Ozone Plan* calls for a 75-percent reduction in ozone-forming oxides of nitrogen emissions.

The SJVAPCD has also prepared the *2007 PM₁₀ Maintenance Plan and Request for Redesignation* (2007 PM₁₀ Plan). On April 24, 2006, the SJVAPCD submitted a Request for Determination of PM₁₀ Attainment for the Basin to the California Air Resources Board (CARB). CARB concurred with the request and submitted the request to the U.S. EPA on May 8, 2006. On October 30, 2006, the EPA issued a Final Rule determining that the Basin had attained the National Ambient Air Quality Standards (NAAQS) for PM₁₀. However, the EPA noted that the Final Rule did not constitute a redesignation to attainment until all of the Federal Clean Air Act requirements under Section 107(d)(3) were met.

The SJVAPCD has prepared the *2008 PM_{2.5} Plan* to achieve Federal and State standards for improved air quality in the San Joaquin Valley Air Basin. The *2008 PM_{2.5} Plan* provides a comprehensive list of regulatory and incentive-based measures to reduce PM_{2.5}.

In addition to the *2007 Ozone Plan*, the *2008 PM_{2.5} Plan*, and the *2007 PM₁₀ Plan*, the SJVAPCD prepared the *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI). The GAMAQI is an advisory document that provides Lead Agencies, consultants, and project applicants with analysis guidance and uniform procedures for addressing air quality impacts in environmental documents. Local jurisdictions are not required to utilize the methodology outlined therein. This document describes the criteria that SJVAPCD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for determining whether or not projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. An update of the GAMAQI was approved on March 19, 2015, and is used as a guidance document for this analysis.

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. Air quality emissions would be generated during construction of the proposed project and during operation of the proposed project. Operational emissions would come primarily from vehicle emissions from vehicle trips generated by the proposed project. Construction-related air quality impacts and operational air quality impacts are addressed separately below.

Construction-Related Emissions

Construction would result in numerous activities that would generate dust. The fine, silty soils in the project area and often strong afternoon winds exacerbate the potential for dust, particularly in the summer months. Grading, leveling, earthmoving and excavation are the activities that generate the most particulate emissions. Impacts would be localized and variable. The initial phase of project construction would involve grading and leveling the project site and installation of supporting underground infrastructure, such as water, sewer, storm drain, and electrical lines.

A quantification of the project's construction emissions of ROG, NO_x, PM₁₀, and PM_{2.5} has been performed using the California Emissions Estimator Model (CalEEMod™) (v. 2016.3.2). Below is

a list of model assumptions used in the construction screens of CalEEMod. Table 1 presents the estimated construction phase schedule, which shows the duration of each construction phase. Table 2 shows the off-road construction equipment used during construction for each phase and Table 3 shows the construction emissions for the construction years 2020 and 2021.

Table 1: Construction Phase

PHASE #	PHASE NAME	START DATE	END DATE	# DAYS WEEK	# DAYS
1	Site Preparation	8/29/2020	9/1/2020	5	2
2	Grading	9/2/2020	9/7/2020	5	4
3	Building Construction	9/8/2020	6/14/2021	5	200
4	Paving	6/15/2021	6/28/2021	5	10
5	Architectural Coating	6/29/2021	7/12/2021	5	10

SOURCE: CAL EEMOD, v.2016.3.2. (SEE APPENDIX A)

Table 2: Off-Road Equipment

EQUIPMENT TYPE	UNIT AMOUNT	HOURS/DAY	HORSEPOWER	LOAD FACTOR
<i>Site Preparation</i>				
Rubber Tired Dozers	1	7.00	247	0.40
Tractors/Loaders/Backhoes	1	8.00	97	0.37
Graders	1	8.00	187	0.41
<i>Grading</i>				
Graders	1	6.00	187	0.41
Rubber Tired Dozers	1	6.00	247	0.40
Tractors/Loaders/Backhoes	1	7.00	97	0.37
<i>Building Construction</i>				
Cranes	1	6.00	231	0.29
Forklifts	1	6.00	89	0.20
Generator Sets	1	8.00	84	0.74
Tractors/Loaders/Backhoes	1	6.00	97	0.37
Welders	3	8.00	46	0.45
<i>Paving</i>				
Pavers	1	6.00	130	0.42
Paving Equipment	1	8.00	132	0.36
Rollers	1	7.00	80	0.38
Tractors/Loaders/Backhoes	1	8.00	97	0.37
<i>Architectural Coating</i>				
Air Compressors	1	6.00	78	0.48

SOURCE: CAL EEMOD, v.2016.3.2. (SEE APPENDIX A)

Table 3: Construction Emissions in Tons Per Year (Unmitigated)

YEAR	POLLUTANTS AND THRESHOLDS			
	ROG	NO _x	PM ₁₀ TOTAL	PM _{2.5} TOTAL
	≤ 10 TONS/YEAR	≤ 10 TONS/YEAR	≤ 15 TONS/YEAR	≤ 15 TONS/YEAR
2020	0.0958	0.7249	0.0650	0.0460
2021	0.1835	0.9241	0.0627	0.0467
Maximum Per Year	0.1835	0.9241	0.0650	0.0467
Threshold Exceeded in Any Year?	No	No	No	No

NOTES: THE AIR DISTRICT IS ATTAINMENT FOR CO, AND SO₂.

SOURCE: CAL EEMOD, v.2016.3.2. (SEE APPENDIX A)

The SJVAPCD has established construction-related emissions thresholds of significance as follows: 10 tons per year of NO_x, 10 tons per year of ROG, or 15 tons per year of PM₁₀ or PM_{2.5}. If the proposed project's emissions will exceed the SJVAPCD's threshold of significance for construction-generated emissions, the proposed project will have a significant impact on air quality and all feasible mitigation are required to be implemented to reduce emissions. As shown in Table 3 above, annual emissions will not exceed the SJVAPCD thresholds of significance in any given year. However, regardless of emission quantities, the SJVAPCD requires construction-related project requirements in accordance with their rules and regulations. Implementation of the following project requirements will ensure that the proposed project's construction-related emissions are at a **less-than-significant** level.

Project Requirement(s)

Project Requirement 2: *Prior to the commencement of grading activities, the City shall require the contractor hired to complete the grading activities to prepare a construction emissions reduction plan that meets the requirements of SJVAPCD Rule VIII. The construction emissions reductions plan shall be submitted to the SJVAPCD for review and approval. The City of Tracy shall ensure that all required permits from the SJVAPCD have been issued prior to commencement of grading activities. The construction emissions reduction plan should include the following requirements and measures:*

- *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-powered 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.*
- *On-road and off-road diesel equipment shall use aqueous diesel fuel if permitted under manufacturer's guidelines.*
- *On-road and off-road diesel equipment shall use diesel particulate filters if permitted under manufacturer's guidelines.*
- *On-road and off-road diesel equipment shall use cooled exhaust gas recirculation (EGR) if permitted under manufacturer's guidelines.*
- *Use of Caterpillar pre-chamber diesel engines or equivalent shall be utilized if economic and available 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.)*

Implementation of the above requirements shall occur during all grading or site clearing activities. The SJVAPCD shall be responsible for monitoring.

Project Requirement 3: *The following requirements, in addition to those required under Regulation VIII of the SJVAPCD, shall be implemented by the project's contractor during all phases of project grading and construction to reduce fugitive dust emissions:*

- *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 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 on-site and off-site 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 vehicles 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 over 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 the use of blowers is expressly forbidden.)*
- *Remove visible track-out from the site at the end of each workday.*
- *Cease grading activities during periods of high winds (greater than 20 mph over a one-hour period).*
- *Asphalt-concrete paving shall comply with SJVAPCD Rule 4641 and restrict use of cutback, slow-sure, and emulsified asphalt paving materials.*

Implementation of the above requirements shall occur during all grading or site clearing activities. The SJVAPCD shall be responsible for monitoring.

Operational Emissions

CalEEMod™ (v.2016.3.2) was used to estimate emissions for buildout of the proposed project. Table 4 shows the emissions, which include mobile, area source, and energy emissions of criteria pollutants that would result from operations of the proposed project.

Table 4: Operational Buildout Generated Emissions in Tons Per Year (Unmitigated)

CATEGORY	POLLUTANTS AND THRESHOLDS			
	ROG	NO _x	PM ₁₀	PM _{2.5}
	≤ 10 TONS/YEAR	≤ 10 TONS/YEAR	≤ 15 TONS/YEAR	≤ 15 TONS/YEAR
Area	0.0370	1.0000e-005	0.0000	0.0000
Energy	5.3000e-004	4.8600e-003	3.7000e-004	3.7000e-004
Mobile	0.5722	3.3805	0.5056	0.1416
Total	0.6097	3.3854	0.5059	0.1420
Threshold Exceeded?	No	No	No	No

SOURCE: CAL EEMOD, v.2016.3.2. (SEE APPENDIX A)

The SJVAPCD has established thresholds of significance to which proposed project emissions are compared to determine the level of significance. The SJVAPCD has established operations-related emissions thresholds of significance as follows: 10 tons per year of NO_x, 10 tons per year of ROG, 15 tons per year of PM₁₀, and 15 tons per year of PM_{2.5}. If the proposed project's emissions will exceed the SJVAPCD's threshold of significance for operational-generated emissions, the proposed project will have a significant impact on air quality and all feasible mitigation are required to be implemented to reduce emissions to the extent feasible. As shown in Table 4, annual emissions of ROG, NO_x, PM₁₀, and PM_{2.5} would not exceed the SJVAPCD thresholds of significance.

Development of the site for urban (commercial) uses and the subsequent increase in ROG, NO_x, PM₁₀, and PM_{2.5} emissions was taken into consideration in the City of Tracy General Plan and General Plan EIR. On February 1, 2011 the Tracy City Council adopted a Statement of Overriding Considerations (Resolution 2011-028) for the significant generation of long-term ROG, NO_x, and PM₁₀ emissions resulting from adoption of the General Plan.

The proposed project is identified for urban land uses in the Tracy General Plan. The proposed project is consistent with the overriding considerations that were adopted for the General Plan and the established mitigation measures under that Plan. As such, implementation of the proposed project would not create new impacts over and above those identified in the General Plan EIR, nor significantly change previously identified impacts.

Additionally, the proposed project is subject to the SJVAPCD Rule 9510 (Indirect Source Rule, or ISR), which could result in substantial mitigation of emissions beyond what is reflected in the modeling outputs. The reductions are accomplished by the incorporation of mitigation measures into projects and/or by the payment of an Indirect Source Rule fee for any required reductions that have not been accomplished through project mitigation commitments. The actual calculations will be accomplished by the SJVAPCD and project applicants as the project (or portions of the project) are brought forward for approval under Rule 9510.

District Rule 9510 requires developers of residential, commercial and industrial projects to reduce smog-forming (NO_x) and particulate (PM₁₀ and PM_{2.5}) emissions generated by their projects. The Rule applies to projects which, upon full build-out, will include 2,000 sf of commercial space or more. Project developers are required to reduce:

- 20 percent of construction-exhaust nitrogen oxides;
- 45 percent of construction-exhaust PM₁₀;
- 33 percent of operational nitrogen oxides over 10 years; and
- 50 percent of operational PM₁₀ over 10 years.

Developers are encouraged to meet these reduction requirements through the implementation of on-site mitigation; however, if the on-site mitigation does not achieve the required baseline emission reductions, the developer will mitigate the difference by paying an off-site fee to the District. Fees reduce emissions by helping to fund clean-air projects in the District.

Overall, the project would result in **less-than-significant** air quality impacts. However, regardless of the expected emissions totals, the project is still subject to the requirements of SJVAPCD Rule 9510, which requires developers of large residential, commercial and industrial projects to reduce smog-forming (NO_x) and particulate (PM₁₀ and PM_{2.5}) emissions generated by their projects.

Project Requirement(s)

Project Requirement 4: *Prior to the issuance of the first building permit, the project applicant shall coordinate with the SJVAPCD to verify that the project meets the requirements of District Rule 9510, which is aimed at the following reductions:*

- *20 percent of construction-exhaust nitrogen oxides;*
- *45 percent of construction-exhaust PM₁₀;*
- *33 percent of operational nitrogen oxides over 10 years; and*
- *50 percent of operational PM₁₀ over 10 years.*

The project applicant shall coordinate with SJVAPCD to develop measures and strategies to reduce operational emissions from the proposed project. If feasible measures are not available to meet the emissions reductions targets outlined above, then the project applicant may be required to pay an in-lieu mitigation fee to the SJVAPCD to off-set project-related emissions impacts. 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.

Response c): Less than Significant. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to emission sources, and/or duration of exposure to air pollutants. Sensitive receptors include children, the elderly, and the infirm. Land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical

clinics. The nearest sensitive receptor to the project site is an apartment complex located approximately 175-feet north of the project site.

The proposed project would introduce a new gasoline service station that would have associated toxic air containments (TACs) emissions. Benzene is the primary TAC associated with gasoline storage and refueling at gasoline stations. Benzene is carcinogen, in addition to representing a non-cancer health risk (including the potential for anemia). Gasoline vapors are released during the filling for the stationary underground storage tanks (USTs), during the transfer those underground tanks to individual vehicles, and during individual vehicle refueling and associated spillage.

The SJVAPCD has a TAC screening tool to determine if the project would be considered a "high priority" project for TAC impacts. De Novo Planning Group utilized the SJVAPCD's Prioritization Calculator to determine the health risks associated with the release of benzene vapor from the proposed gasoline fueling station on the nearest sensitive receptor. The results of the Prioritization Calculator are in Table 5.

Table 5: SJVAPCD's Prioritization Calculator: Benzene

	<i>SENSITIVE RECEPTOR (R) AND PROXIMITY FACTORS</i>			
	0 sf < R < 100 sf	100 sf ≤ R < 250 sf	250 sf ≤ R < 500 sf	500 sf ≤ R < 1000 sf
Cancer	2.16	0.54	0.09	0.02
Chronic	0.06	0.01	<0.01	<0.01
Acute	0.24	0.06	0.01	<0.01
Max Score	2.16	0.54	0.09	0.02
Screening Threshold Exceeded?	No	No	No	No

SOURCE: SJVAPCD'S PRIORITIZATION CALCULATOR (SEE APPENDIX A)

The SJVAPCD has established thresholds of significance to which proposed project emissions are compared to determine the level of significance. The SJVAPCD has established TAC-related emissions thresholds of significance as follows: < 20 per million for Cancer Risk and less than 1 per million for Chronic (non-cancer) and Acute (non-cancer) Risk. If the proposed project's emissions will exceed the SJVAPCD's threshold of significance for TAC emissions, the proposed project will have a significant impact on sensitive receptors by exposing them to substantial pollutant concentrations. As shown in Table 5, TAC emissions would not exceed the SJVAPCD thresholds of significance for Cancer, Chronic, or Acute risk. Even if the project were 0 meters from the residential receptor to the north, the project would not exceed the SJVAPCD's TAC screening thresholds, and thereby does not trigger the need for an HRA.

The SJVAPCD has stringent requirements for the control of gasoline vapor emissions from gasoline-dispensing facilities. SJVAPCD Rule 4621, Gasoline Transfer into Stationary Storage Containers, Delivery Vessels, and Bulk Plants, prohibits the transfer or allowance of the transfer of gasoline into stationary tanks at a gasoline-dispensing facility unless a CARB-certified Phase I vapor recovery system is used. SJVAPCD Rule 4622, Gasoline Transfer into Motor Vehicle Fuel Tanks further prohibits the transfer or allowance of the transfer of gasoline from stationary tanks

into motor vehicle fuel tanks at a gasoline-dispensing facility unless a CARB-certified Phase II vapor recovery system is used during each transfer. Vapor recovery systems collect gasoline vapors that would otherwise escape into the air during bulk fuel delivery (Phase I) or fuel storage and vehicle refueling (Phase II). Phase I vapor recovery system components include the couplers that connect tanker trucks to the underground tanks, spill containment drain valves, overflow prevention devices, and vent pressure/vacuum valves.

Phase II vapor recovery system components include gasoline dispensers, nozzles, piping, break away hoses, face plates, vapor processors, and system monitors. SJVAPCD's permitting procedures require substantial control of emissions, and permits are not issued unless TAC risk screening or TAC risk assessment can show that risks are not significant. In addition, California has statewide limits on the benzene content in gasoline, which greatly reduces the toxic potential of gasoline emissions.

As described above, the proposed project would not generate significant emissions of criteria air pollutants and would not result in substantial pollutant concentrations. The proposed project would be subject to the SJVAPCD requirements for construction and operational emissions outlined in requirements 2 through 4. Therefore, this is considered a **less-than-significant** impact.

Response d): Less than Significant. Offensive odors rarely cause any physical harm; however, they still can be very unpleasant, leading to considerable distress among the public, and often generate citizen complaints to local governments and regulatory agencies. Major sources of odor-related complaints by the general public commonly include wastewater treatment facilities, landfill disposal facilities, food processing facilities, agricultural activities, and various industrial activities (e.g., petroleum refineries, chemical and fiberglass manufacturing, painting/ coating operations, landfills, and transfer stations).

According to the CARB's Handbook, some of the most common sources of odor complaints received by local air districts are sewage treatment plants, landfills, recycling facilities, waste transfer stations, petroleum refineries, biomass operations, auto body shops, coating operations, fiberglass manufacturing, foundries, rendering plants, and livestock operations. The project does not propose any of the aforementioned uses. Additionally, SJVAPCD presents odor screening distances for a variety of land uses. The project does not propose any of the uses which require screening distances to be met.

The project site could be considered a source of unpleasant odors by some given the proposed future uses; however, as noted previously, SJVAPCD has stringent requirements for the control of gasoline vapor emissions from gasoline-dispensing facilities as articulated in District Rules 4621 and 4622. Compliance with these rules would ensure that potential odors generated at the project site result in a **less than significant** impact and no mitigation is required.

IV. BIOLOGICAL RESOURCES -- Would the project:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	

EXISTING SETTING

The following will describe the existing setting of the San Joaquin County region noting the special-status species known to occur within the region.

Special-Status Invertebrates. Special-status invertebrates that occur within the region include: longhorn fairy shrimp, vernal pool fairy shrimp, and midvalley fairy shrimp, which requires vernal pools and swale areas within grasslands; and the valley elderberry longhorn beetle, which is an insect that is only associated with blue elderberry plants, oftentimes in riparian areas and sometimes on land in the vicinity of riparian areas.

Special-Status Reptiles and Amphibians. Special-status reptiles and amphibians that occur within the region include: the western pond turtle, which requires aquatic environments located along ponds, marshes, rivers, and ditches; the California tiger salamander, which is found in grassland habitats where there are nearby seasonal wetlands for breeding; the silvery legless

lizard, which is found in sandy or loose loamy soils under sparse vegetation with high moisture content; San Joaquin whipsnake, which requires open, dry habitats with little or no tree cover with mammal burrows for refuge; the Alameda whipsnake, which is restricted to valley-foothill hardwood habitat on south-facing slopes; the California horned lizard, which occurs in a variety of habitats including, woodland, forest, riparian, and annual grasslands, usually in open sandy areas; the foothill yellow-legged frog, which occurs in partly shaded and shallow streams with rocky soils; the California red legged frog, which occurs in stream pools and ponds with riparian or emergent marsh vegetation; and the western spadefoot toad, which requires grassland habitats associated with vernal pools.

Special-Status Plant Species. Numerous special-status plant species are known to occur in the region. Many of these special status plant species require specialized habitats such as serpentine soils, rocky outcrops, slopes, vernal pools, marshes, swamps, riparian habitat, alkali soils, and chaparral, which are not present on the project site. The project site is located in an area that was likely valley grassland prior to human settlement, and there are several plant species that are found in valley and foothills grasslands areas. These species include large-flowered fiddleneck, bent-flowered fiddleneck, big-balsamroot, big tarplant, round-leaved filaree, Lemmon's jewelflower, and showy golden madia. Human settlement has involved a high frequency of ground disturbance associated with the historical farming activities in the region, including the project site.

Special-Status Bird Species. Special-status birds that occur within the region include: tricolored blackbird, Swainson's hawk, northern harrier, and bald eagle, which are associated with streams, rivers, lakes, wetlands, marshes, and other wet environments; loggerhead shrike, and burrowing owl, which lives in open areas, usually grasslands, with scattered trees and brush; and raptors that are present in varying habitats throughout the region.

Swainson's Hawk. The Swainson's hawk is threatened in California and is protected by the California Department of Fish and Wildlife (CDFW) and the Migratory Bird Treaty Act (MBTA). Additionally, Swainson's hawk foraging habitat is protected by the CDFW. Swainson's hawks forage in open grasslands and agricultural fields and commonly nest in solitary trees and riparian areas in close proximity to foraging habitat. The foraging range for Swainson's hawk is ten miles from its nesting location.

Burrowing Owl. Burrowing owls are a California Species of Special Concern and are protected by the CDFW and the MBTA. Burrowing owls forage in open grasslands and shrublands and typically nest in old ground squirrel burrows. The project site contains suitable, but not high-quality habitat for burrowing owls.

RESPONSES TO CHECKLIST QUESTIONS

Response a, e, f): Less than Significant. The project site is located within the jurisdiction of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan ("Plan" or "SJMSCP") and is located within the within the Central/Southwest Transition Zone of the SJMSCP. The San Joaquin Council of Governments (SJCOG) prepared the Plan pursuant to a Memorandum of Understanding adopted by SJCOG, San Joaquin County, the United States Fish and Wildlife

Service (USFWS), the CDFW, Caltrans, and the cities of Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy in October 1994. On February 27, 2001, the Plan was unanimously adopted in its entirety by SJCOG. The City of Tracy adopted the Plan on November 6, 2001.

According to Chapter 1 of the SJMSCP, 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 (ESA) or the California Endangered Species Act (CESA); providing and maintaining multiple use Open Spaces which contribute to the quality of life of the residents of San Joaquin County; and, accommodating a growing population while minimizing costs to project proponents and society at large.”

In addition to providing compensation for conversion of open space to non-open space uses, which affect plant and animal species covered by the SJMSCP, the SJMSCP also provides some compensation to offset impacts of open space conversions on non-wildlife related resources such as recreation, agriculture, scenic values and other beneficial open space uses. Specifically, the SJMSCP compensates for conversions of open space to urban development and the expansion of existing urban boundaries, among other activities, for public and private activities throughout the County and within Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy.

Participation in the SJMSCP is voluntary for both local jurisdictions and project applicants. Only agencies adopting the SJMSCP would be covered by the SJMSCP. 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.

Responsibilities of permittees covered by the SJMSCP include collection of fees, maintenance of implementing ordinances/resolutions, conditioning permits (if applicable), and coordinating with the Joint Powers Authority (JPA) for Annual Report accounting. Funds collected for the SJMSCP are to be used for the following: acquiring Preserve lands, enhancing Preserve lands, monitoring and management of Preserve lands in perpetuity, and the administration of the SJMSCP. Because the primary goal of SJMSCP is to preserve productive agricultural use that is compatible with SJMSCP's biological goals, most of the SJMSCP's Preserve lands would be acquired through the purchase of easements in which landowners retain ownership of the land and continue to farm the land. These functions are managed by SJCOG.

The proposed project is classified as Urban Habitat under the SJMSCP. The proposed project was analyzed for consistency with the SJMSCP by De Novo Planning Group, and it was determined that the proposed project would not conflict with the SJMSCP. The City of Tracy and the project applicant shall consult with SJCOG to utilize coverage of the project to mitigate the impacts to the

various habitat and species pursuant to the SJMSCP prior to development of the site (Project Requirement 5). Therefore, this is a **less-than-significant** impact. Additionally, the implementation of Project Requirement 5 would ensure a **less-than-significant** impact to special-status invertebrates, special-status reptiles and amphibians, and special-status plants.

With respect to Swainson's hawks, no nesting habitat for this species occurs on-site. However, because of the numerous documented occurrences within ten miles of the project site it is necessary to implement Project Requirement 6 to ensure Swainson's hawk are not impacted during construction activities. Therefore, the implementation of Project Requirement 6 would ensure a **less-than-significant** impact to Swainson's hawk

With respect to burrowing owls, impacts are considered unlikely, due to the presence of urban development surrounding the site to the east, west, and northwest. However, the land to the south and southeast of the project site contains agricultural land which offers moderate foraging and roosting habitat for wintering or breeding owls. The implementation of Project Requirement 7 would ensure that burrowing owls are not impacted during construction activities. The implementation of Project Requirement 7 would ensure a **less-than-significant** impact to burrowing owls.

Project Requirement(s)

Project Requirement 5: *Prior to development of the site, including the commencement of grading activities, the City of Tracy and the project applicant shall consult with SJCOG to utilize coverage of the project pursuant to the SJMSCP.*

Project Requirement 6: *The project proponent shall implement the following measures to avoid or minimize impacts on Swainson's hawk:*

- *No more than 30 days before the commencement of construction, a qualified biologist shall perform preconstruction surveys for nesting Swainson's hawk and other raptors during the nesting season (February 1 through August 31).*
- *Appropriate buffers shall be established and maintained around active nest sites during construction activities to avoid nest failure as a result of project activities. The appropriate size and shape of the buffers shall be determined by a qualified biologist, in coordination with CDFW, and may vary depending on the nest location, nest stage, and construction activity. The buffers may be adjusted if a qualified biologist determines it would not be likely to adversely affect the nest. Monitoring shall be conducted to confirm that project activity is not resulting in detectable adverse effects on nesting birds or their young. No project activity shall commence within the buffer areas until a qualified biologist has determined that the young have fledged or the nest site is otherwise no longer in use.*
- *Before the commencement of construction, the project proponent shall provide compensatory mitigation for the permanent loss of Swainson's hawk foraging habitat. Mitigation shall be at the CDFW specified ratios, which are based on distance to nests. The project site's distance to the closest nest likely falls within the range of "within 5 miles of an active nest tree but greater than 1 mile from the nest tree." As such, the project shall be*

responsible for 0.75 acres of each acre of urban development authorized (0-75:1 ratio). The project proponent shall either provide lands protected through fee title acquisition or conservation easement (acceptable to the CDFW) on agricultural lands or other suitable habitats which provide foraging habitat for Swainson's hawk.

Project Requirement 7: *Prior to the commencement of grading activities or other ground disturbing activities on the project site, the project applicant shall arrange for a qualified biologist to conduct a preconstruction survey for western burrowing owls. If no owls or owl nests are detected, then construction activities may commence. If burrowing owls or occupied nests are discovered, then the following shall be implemented:*

- *During the breeding season (February 1 through September 1) occupied burrows shall not be disturbed and shall be provided with a 75 meter protective buffer until and unless the SJCOG Technical Advisory Committee (TAC), with the concurrence of the Permitting Agencies' representatives on the TAC; or unless a qualified biologist approved by the Permitting Agencies verifies through non-invasive means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Once the fledglings are capable of independent survival, the burrow can be destroyed. They should only be destroyed by a qualified biologist using passive one-way eviction doors to ensure that owls are not harmed during burrow destruction. Methods for removal of burrows are described in the California Department of Fish and Game's Staff Report on Burrowing Owls (October, 1995)*
- *During the non-breeding season (September 1 through January 31) burrowing owls occupying the project site should be evicted from the project site by passive relocation as described in the California Department of Fish and Game's Staff Report on Burrowing Owls (Oct., 1995)*

Implementation of this requirement shall occur prior to grading or site clearing activities. SJCOG shall be responsible for monitoring and a qualified biologist shall conduct surveys and relocate owls as required.

Responses b): No Impact. Riparian natural communities support woody vegetation found along rivers, creeks and streams. Riparian habitat can range from a dense thicket of shrubs to a closed canopy of large mature trees covered by vines. Riparian systems are considered one of the most important natural resources. While small in total area when compared to the state's size, they provide a special value for wildlife habitat.

Over 135 California bird species either completely depend upon riparian habitats or use them preferentially at some stage of their life history. Riparian habitat provides food, nesting habitat, cover, and migration corridors. Another 90 species of mammals, reptiles, invertebrates and amphibians depend on riparian habitat. Riparian habitat also provides riverbank protection, erosion control and improved water quality, as well as numerous recreational and aesthetic values.

There is no riparian habitat or other sensitive natural communities located on the project site. As such, the proposed project would have **no impact** on these resources, and no mitigation is required.

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

Wetlands are defined by regulatory agencies as having special vegetation, soil, and hydrology characteristics. Hydrology, or water inundation, is a catalyst for the formation of wetlands. Frequent inundation and low oxygen causes chemical changes to the soil properties resulting in what is known as hydric soils. The prevalent vegetation in wetland communities consists of hydrophytic plants, which are adapted to areas that are frequently inundated with water. Hydrophytic plant species have the ability to grow, effectively compete, reproduce, and persist in low oxygen soil conditions.

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

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

There are no wetlands located on the project site. Therefore, this is a **less-than-significant** impact and no mitigation is required.

Response d): Less than Significant. According to the California Department of Fish and Wildlife BIOS Viewer, no wildlife corridors or wildlife nursery sites exist on or adjacent to the project site. The nearest wildlife corridor is located approximately 3.0 miles southeast of the project site. Implementation of the proposed project would have a **less-than-significant** impact.

V. CULTURAL RESOURCES -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?			X	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a), b), c), d): Less than Significant. The City of Tracy General Plan and subsequent EIR do not identify the project site as having prehistoric period, or cultural resources. Additionally, a review of literature maintained by the Central California Information Center of the California Historical Resources Information System at California State University, Stanislaus identified that no previously identified prehistoric period cultural resources are known within, or within a 1/4-mile radius of the project site. Therefore, it is not anticipated that site grading and preparation activities would result in impacts to cultural, historical, archaeological or paleontological resources. There are no known human remains located on the project site, nor is there evidence to suggest that human remains may be present on the project site.

However, as with most projects in California that involve ground-disturbing activities, there is the potential for discovery of previously unknown cultural and historical resource or human remains.

The implementation of Requirement 8 would require appropriate steps to preserve and/or document any previously undiscovered resources that may be encountered during construction activities, including human remains. Implementation of this requirement would reduce this impact to a **less than significant** level.

Project Requirement(s)

Project Requirement 8: *If any prehistoric or historic artifacts, human remains or other indications of archaeological resources are found during grading and construction activities, an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be consulted to evaluate the finds and recommend appropriate mitigation measures.*

- *If cultural resources or Native American resources are identified, every effort shall be made to avoid significant cultural resources, with preservation an important goal. If significant sites cannot feasibly be avoided, appropriate mitigation measures, such as data recovery excavations or photographic documentation of buildings, shall be undertaken consistent with applicable state and federal regulations.*
 - *If human remains are discovered, all work shall be halted immediately within 50 meters (165 feet) of the discovery, the County Coroner must be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.*
 - *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.*

VI. ENERGY

<i>Would the project:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Responses to Checklist Questions

Responses a), b): Appendix F of the State CEQA Guidelines requires consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce “wasteful, inefficient and unnecessary” energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to Appendix F of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. In particular, the proposed project would be considered “wasteful, inefficient, and unnecessary” if it were to violate state and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

The proposed project includes the construction of a 3,884 square foot (sf) convenience store and 2,880 sf fueling island. The amount of energy used at the project site would directly correlate to the size of the proposed units, the energy consumption of associated unit appliances, and outdoor lighting. Other major sources of proposed project energy consumption include fuel used by vehicle trips generated during project construction and operation, and fuel used by off-road construction vehicles during construction.

The following discussion provides calculated levels of energy use expected for the proposed project, based on commonly used modelling software (i.e. CalEEMod v.2016.3.2 and the California Air Resource Board’s EMFAC2017). It should be noted that many of the assumptions provided by CalEEMod are conservative relative to the proposed project. Therefore, this discussion provides a conservative estimate of proposed project emissions.

Electricity and Natural Gas

Total annual unmitigated and mitigated electricity (kWh) and natural gas (kBtu) usage associated with the operation of the proposed project are shown in Tables 6 and 7, below (as provided by CalEEMod). According to Calico’s Appendix A: Calculation Details for CalEEMod, CalEEMod uses the California Commercial End Use Survey (CEUS) database to develop energy intensity value for non-residential buildings.

Table 6: Project Operational Natural Gas and Electricity Usage (Unmitigated Scenario)

Emissions^(a)	Natural Gas (kBTU/year)	Electricity (kWh/year)
Convenience Market (24 Hour)	45,443	45,792.4
Gas/Service Station	53,683	24,336
Other Asphalt Surfaces	0	0
Parking Lot	0	1,573.25
Total	102,126	71,701.65

NOTE: ^(a) NUMBERS PROVIDED BY CALEEMOD (SEE ATTACHMENT A).

SOURCE: CALEEMOD (v.2016.3.2).

Table 7: Project Operational Natural Gas and Electricity Usage (Mitigated Scenario)

Emissions^(a)	Natural Gas (kBTU/year)	Electricity (kWh/year)
Convenience Market (24 Hour)	45,443	45,792.4
Gas/Service Station	53,683	24,336
Other Asphalt Surfaces		0
Parking Lot		1,573.25
Total	102,126	71,701.65

NOTE: ^(a) NUMBERS PROVIDED HERE MAY NOT ADD UP EXACTLY TO TOTAL DUE TO ROUNDING.

SOURCE: CALEEMOD (v.2016.3.2).

As shown in Tables 6 and 7, the convenience store and gas station are expected to use 102,126 kBTU of natural gas per year and 71,701.65 kWh of electricity per year. It should be noted that the project operational natural gas and energy usage is the same in the unmitigated and mitigated scenarios.

On-Road Vehicles (Operation)

The proposed project would generate vehicle trips during its operational phase. According to the Transportation Impact Analysis Report prepared for the proposed project (Kimley Horn, 2020), the project would generate approximately 2,464 new daily vehicles trips. In order to calculate operational on-road vehicle energy usage and emissions, default trip lengths generated by CalEEMod were used, which are based on the project location and urbanization level parameters De Novo (the CEQA consultant) selected within CalEEMod (i.e. “San Joaquin Valley Air Pollution Control District” project location and “Urban” setting, respectively). These values are provided by the individual districts or use a default average for the state, depending on the location of the proposed project (CAPCOA, 2017). Based on the vehicle trip data provided in the Traffic Impact Assessment, and assumptions included within the CalEEMod model, the proposed project would generate approximately 3,619 average daily vehicle miles travelled (Average Daily VMT). Using fleet mix data provide by CalEEMod (v2016.3.2), and Year 2021 gasoline and diesel MPG (miles per gallon) factors for individual vehicle classes as provided by EMFAC2017, De Novo derived weighted MPG factors for operational on-road vehicles of approximately 26.8 MPG for gasoline and 9.5 MPG for diesel vehicles. With this information, De Novo calculated as a conservative estimate that the unmitigated proposed project would generate vehicle trips that would use a total of approximately 122 gallons of gasoline and 38 gallons of diesel fuel per day, on average, or 44,419 gallons of gasoline and 13,701 annual gallons of diesel fuel per year.

On-Road Vehicles (Construction)

The proposed project would also generate on-road vehicle trips during project construction (from construction workers and vendors). Estimates of vehicle fuel consumed were derived based on the assumed construction schedule, vehicle trip lengths and number of workers per construction phase as provided by CalEEMod, and Year 2020 gasoline MPG factors provided by EMFAC2017. For the purposes of simplicity, it was assumed that all vehicles used gasoline as a fuel source (as opposed to diesel fuel or alternative sources). Table 8, below, describes gasoline and diesel fuel used by on-road mobile sources during each phase of the construction schedule. As shown, the vast majority of on-road mobile vehicle fuel used during the construction of the proposed project would occur during the building construction phase. See Appendix A for a detailed calculation.

Table 8: On-Road Mobile Fuel Generated by Project Construction Activities – By Phase

Construction Phase	# of Days	Total Daily Worker Trips^(a)	Total Daily Vendor Trips^(a)	Gallons of Gasoline Fuel^(b)	Gallons of Diesel Fuel^(b)
Site Preparation	10	8	-	32	-
Grading	4	8	-	13	-
Building Construction	200	31	12	2,471	2,495
Paving	10	13	-	52	-
Architectural Coating	10	6	-	24	-
Total	N/A	N/A	N/A	2,592	2,495

NOTE: ^(a) PROVIDED BY CAL EEMOD. ^(b) SEE APPENDIX A FOR FURTHER DETAIL

SOURCE: CAL EEMOD (v.2016.3.2); EMFAC2017.

Off-Road Vehicles (Construction)

Off-road construction vehicles would use diesel fuel during the construction phase of the proposed project. A non-exhaustive list of off-road constructive vehicles expected to be used during the construction phase of the proposed project includes: cranes, forklifts, generator sets, tractors, excavators, and dozers. Based on the total amount of CO₂ emissions expected to be generated by the proposed project (as provided by the CalEEMod output), and a CO₂ to diesel fuel conversion factor (provided by the U.S. Energy Information Administration), the proposed project would use a total of approximately 16.7 gallons of diesel fuel for off-road construction vehicles (during the site preparation and grading phases of the proposed project). Detailed calculations are provided in Appendix A.

Conclusion

The proposed project would use energy resources for the operation of project buildings (electricity and natural gas), for on-road vehicle trips (e.g. gasoline and diesel fuel) generated by the proposed project, and from off-road construction activities associated with the proposed project (e.g. diesel fuel). Each of these activities would require the use of energy resources. The proposed project would be responsible for conserving energy, to the extent feasible, and relies

heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures.

The proposed project would be in compliance with all applicable Federal, State, and local regulations regulating energy usage. For example, PG&E is responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing the Statewide Renewable Portfolio Standard (RPS) to increase the proportion of renewable energy (e.g. solar and wind) within its energy portfolio. PG&E is expected to achieve at least a 33% mix of renewable energy resources by 2020, and 50% by 2030. Additionally, energy-saving regulations, including the latest State Title 24 building energy efficiency standards (“part 6”), would be applicable to the proposed project. Other Statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g. the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time. Furthermore, as described previously, the incorporation of the mitigation measures described previously in this section would further reduce project energy consumption.

As a result, the proposed project would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for each stage of the project including construction, operations, maintenance, and/or removal. PG&E, the electricity and natural gas provider to the site, maintains sufficient capacity to serve the proposed project. The proposed project would comply with all existing energy standards, including those established by the City of Tracy, and would not result in significant adverse impacts on energy resources. For these reasons, the proposed project would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor cause a significant impact on any of the threshold as described by Appendix F of the CEQA Guidelines. This is a *less than significant* impact.

VII. GEOLOGY AND SOILS -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a.i), a.ii): Less than Significant. The project site is located in an area of moderate to high seismicity. No known active faults cross the project site, and the site is not located within an Alquist-Priolo Earthquake Fault Zone, however, relatively large earthquakes have historically occurred in the Bay Area and along the margins of the Central Valley. Many earthquakes of low magnitude occur every year in California. The nearest earthquake fault zoned as active by the State of California Geological Survey is the Black Butte Fault, located approximately 3.4 miles to the west of the site. However, the Black Butte fault is not considered an active fault that would

trigger evaluation under the Alquist-Priolo Earthquake Fault Zoning Act. Other active and potentially active faults near the project site include the San Joaquin fault, 4.4 miles south of the site, the Midway fault, 4.5 miles west, and Corral Hollow-Carnegie fault zone, 6.4 miles southwest. Figure 5 shows nearby faults in relation to the project site.

Active faults capable of producing significant ground shaking at the site include the Calaveras, approximately 25 miles southwest; the Hayward fault, approximately 28 miles west; the Ortigalita fault, approximately 30 miles southwest; and the San Andreas Fault, approximately 50 miles southwest of the site. Any one of these faults could generate an earthquake capable of causing strong ground shaking at the subject site. Earthquakes of Moment Magnitude (Mw) 7 and larger have historically occurred in the region and numerous small magnitude earthquakes occur every year.

Since there are no known active faults crossing the project site and the site is not located within an Earthquake Fault Special Study Zone, the potential for ground rupture at the site is considered low.

An earthquake of moderate to high magnitude generated within the San Francisco Bay Region and along the margins of the central valley could cause considerable ground shaking at the site, similar to that which has occurred in the past. In order to minimize potential damage to the proposed structures caused by groundshaking, all construction would comply with the latest California Building Code standards, as required by the City of Tracy Municipal Code 9.04.030.

Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead-and-live loads. The code-prescribed lateral forces are generally considered to be substantially smaller than the comparable forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage.

Implementation of the California Building Code standards, which include provisions for seismic building designs, 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.

The Safety Element of the Tracy General Plan includes several goals, objectives and policies to reduce the risks to the community from earthquakes and other geologic hazards. In particular, the following policies would apply to the project site:

SA-1.1, Policy P1: Underground utilities, particularly water and natural gas mains, shall be designed to withstand seismic forces.

SA-1.1, Policy P2: Geotechnical reports shall be required for development in areas where potentially serious geologic risks exist. These reports should address the degree of

hazard, design parameters for the project based on the hazard, and appropriate mitigation measures.

SA-1.2, Policy P1: All construction in Tracy shall conform to the California Building Code and the Tracy Municipal Code including provisions addressing unreinforced masonry buildings.

Implementation of the requirements of the California Building Code and the Tracy General Plan would ensure that impacts on humans associated with seismic hazards would be **less than significant**. No additional mitigation is required.

Responses a.iii), c), d): Less than Significant. Liquefaction normally occurs when sites underlain by saturated, loose to medium dense, granular soils are subjected to relatively high ground shaking. During an earthquake, ground shaking may cause certain types of soil deposits to lose shear strength, resulting in ground settlement, oscillation, loss of bearing capacity, landsliding, and the buoyant rise of buried structures. The majority of liquefaction hazards are associated with sandy soils, some silty soils of low plasticity, and some gravelly soils. Cohesive soils are generally not considered to be susceptible to liquefaction. In general, liquefaction hazards are most severe within the upper 50 feet of the surface, except where slope faces or deep foundations are present. Soils that underlay the project site consist of predominantly clay soil particle sizes. Clay-type soils are generally not subject to liquefaction.

The geologic conditions conducive to lateral spreading include gentle surface slope (0.3-5% slope), and liquefiable soils. As identified in the Tracy General Plan EIR, the majority of the Tracy Planning Area is at low risk for liquefaction, with the exception for the river banks within the Planning Area. Objective SA-1.1 states that geologic hazards should be minimized. The Safety Element contains a policy requiring that geotechnical engineering studies be undertaken for any development in areas where potentially serious geologic risks exist (Objective SA- 1.1, P1), which would include liquefaction. The General Plan EIR concluded that the implementation of this policy would reduce the potential risk of liquefaction to a less-than-significant level.

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. Expansion is a typical characteristic of clay-type soils. Expansive soils shrink and swell in volume during changes in moisture content, such as a result of seasonal rain events, and can cause damage to foundations, concrete slabs, roadway improvements, and pavement sections. Soil expansion is dependent on many factors. The more clayey, critically expansive surface soil and fill materials will be subjected to volume changes during seasonal fluctuations in moisture content. As indicated in the Tracy General Plan EIR, Tracy does have a moderate to high risk for expansive soils, depending on the location and soil type, and according to the NCIS Web Soil Survey, soils that underlay the project site are considered to have a high to very high potential for expansion. The Safety Element contains objectives to minimize geologic hazards, and a policy to require geotechnical reports for all development proposed in areas with risk of geological hazard (Objective SA-1.1, P2).

Therefore, it was concluded that implementation of the General Plan policy would reduce the potential impact related to the risk of soil expansion to a less-than-significant level

Prior to development of the project site, a subsurface geotechnical investigation must be performed to identify onsite soil conditions and identify any site-specific engineering measures to be implemented during the construction of building foundations and subsurface utilities. Additionally, the California Building Code Title 24, Part 2, Chapter 18, Section 1803.1.1.2 requires specific geotechnical evaluation when a preliminary geotechnical evaluation determines that expansive or other special soil conditions are present, which, if not corrected, would lead to structural defects. As such, this is a **less-than-significant** impact. Adherence to the engineering requirements contained in the subsurface geotechnical report would ensure that this impact is **less than significant**.

Project Requirements

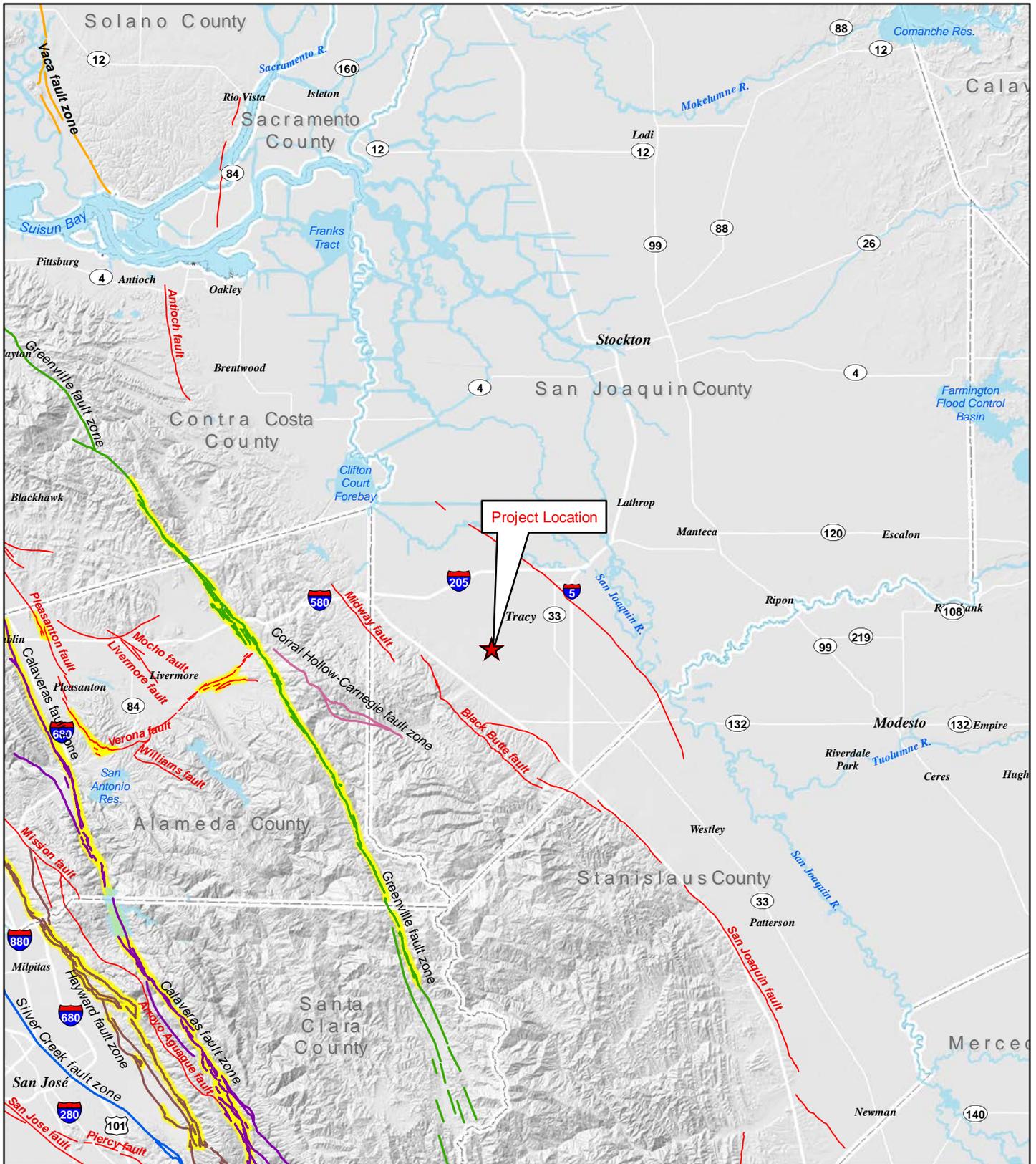
Requirement 9: *Prior to development of the project site, a subsurface geotechnical investigation must be performed to identify onsite soil conditions and identify any site-specific engineering measures to be implemented during the construction of building foundations and subsurface utilities.*

Responses a.iv): Less than Significant. The project site is relatively flat and there are no major slopes in the vicinity of the project site. As such, the project site is exposed to little or no risk associated with landslides. This is a **less-than-significant** impact.

Response b): Less than Significant. Construction and site preparation activities associated with development of the project site include grading for the construction of the proposed project. During the construction preparation process, existing vegetation would be removed to grade and compact the project site, as necessary. As construction occurs, these exposed surfaces could be susceptible to erosion from wind and water. Effects from erosion include impacts on water quality and air quality. Exposed soils that are not properly contained or capped increase the potential for increased airborne dust and increased discharge of sediment and other pollutants into nearby stormwater drainage facilities. Risks associated with erosive surface soils can be reduced by using appropriate controls during construction and properly revegetating exposed areas. Project Requirement 3 requires the implementation of various dust control measures during site preparation and construction activities that would reduce the potential for soil erosion and the loss of topsoil. Additionally, Project Requirement 9 would require the implementation of various best management practices (BMPs) that would reduce the potential for disturbed soils and ground surfaces to result in erosion and sediment discharge into adjacent surface waters during construction activities. The implementation of these requirements would reduce these impacts to a **less than significant** level and no additional mitigation is required.

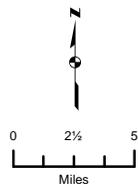
Response e): No Impact. The project site would be served by public wastewater facilities and does not require an alternative wastewater system such as septic tanks. Implementation of the proposed project would have **no impact** on this environmental issue.

Response f): Less than Significant. Known paleontological resources or sites are not located on the project site. Additionally, unique geologic features are not located on the site. The site is currently undeveloped and surrounded by existing or future urban development. As discussed in Section V, Cultural Resources, should artifacts or unusual amounts of stone, bone, or shell be uncovered during construction activities, an archeologist should be consulted for an evaluation. Implementation of Project Requirement 8 would require investigations and avoidance methods in the event that a previously undiscovered cultural resource is encountered during construction activities. With implementation of Project Requirement 8, impacts to paleontological resources or unique geologic features are not expected. This is a *less than significant* impact.



Legend

- Alquist-Priolo Zone
- Calaveras fault zone
- Corral Hollow-Carnegie fault zone
- Greenville fault zone
- Hayward fault zone
- Silver Creek fault zone
- Vaca fault zone
- Named Fault



EDGEWOOD COMMERCIAL

Figure 5. Earthquake Fault Map

Data sources: US Geologic Survey; CalAtlas. Map date: June 19, 2018.

VIII. GREENHOUSE GAS EMISSIONS – WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?			X	

BACKGROUND DISCUSSION

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Naturally occurring greenhouse gases include water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and ozone (O₃). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also greenhouse gases, but they are, for the most part, solely a product of industrial activities. Although the direct greenhouse gases CO₂, CH₄, and N₂O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2011, concentrations of these three greenhouse gases have increased globally by 40, 150, and 20 percent, respectively (IPCC 2013)¹.

Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (California Energy Commission 2014)². In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (California Energy Commission 2014).

¹ Intergovernmental Panel on Climate Change. 2013. "Climate Change 2013: The Physical Science Basis, Summary for Policymakers." Available: <http://www.climatechange2013.org/images/report/WG1AR5_SPM_FINAL.pdf>.

² California Energy Commission. 2014. California Greenhouse Gas Emission Inventory. Available: <http://www.arb.ca.gov/cc/inventory/inventory_current.htm>.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California produced 424.1 million gross metric tons of carbon dioxide equivalents (MMTCO_{2e}) in 2017 (California Energy Commission, 2019). By 2020, California is projected to produce 509 MMTCO_{2e} per year (California Air Resources Board, 2015).

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2017, accounting for 41% of total GHG emissions in the state. This category was followed by the industrial sector (24%), the electricity generation sector (including both in-state and out-of-state sources) (15%), the agriculture sector (8%), the residential energy consumption sector (7%), and the commercial energy consumption sector (5%) (California Energy Commission, 2019).

EFFECTS OF GLOBAL CLIMATE CHANGE

The effects of increasing global temperature are far-reaching and extremely difficult to quantify. The scientific community continues to study the effects of global climate change. In general, increases in the ambient global temperature as a result of increased GHGs are anticipated to result in rising sea levels, which could threaten coastal areas through accelerated coastal erosion, threats to levees and inland water systems and disruption to coastal wetlands and habitat.

If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the state. The snowpack portion of the supply could potentially decline by 70% to 90% by the end of the 21st century (Cal EPA 2006)³. This phenomenon could lead to significant challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the state; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system.

Sea level has risen approximately seven inches during the last century and it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emissions levels (Cal EPA

³ California Environmental Protection Agency, Climate Action Team. 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. Available: <http://www.climatechange.ca.gov/climate_action_team/reports/>.

2006). If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion and disruption of wetlands (Cal EPA 2006). As the existing climate throughout California changes over time, mass migration of species, or failure of species to migrate in time to adapt to the perturbations in climate, could also result. Under the emissions scenarios of the Climate Scenarios report (California Environmental Protection Agency, 2010), the impacts of global warming in California are anticipated to include, but are not limited to, the following.

Public Health

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25% to 35% under the lower warming range and to 75% to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts capture and transport water throughout the state from Northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snow pack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snow pack, increasing the risk of summer water shortages.

The state's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major state fresh water supply. Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25% of the water supply they need; decrease the potential for hydropower production within the state (although the effects on hydropower are uncertain); and seriously harm winter tourism. Under the lower warming range, the snow dependent winter recreational season at lower elevations could be reduced by as much as one month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing, snowboarding, and other snow dependent recreational activities.

If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snow pack by as much as 70% to 90%. Under the lower warming scenario, snow pack losses are expected to be only half as large as those expected if temperatures were to rise to the higher warming range. How much snow pack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snow pack would pose challenges to water managers, hamper hydropower generation, and nearly eliminate all skiing and other snow-related recreational activities.

Agriculture

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher carbon dioxide levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures are likely to worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts, and milk.

Crop growth and development will be affected, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures will likely aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

In addition, continued global warming will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, it is likely that new or different weed species will fill the emerging gaps. Continued global warming is also likely to alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

Forests and Landscapes

Global warming is expected to alter the distribution and character of natural vegetation thereby resulting in a possible increased risk of large wildfires. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30% toward the end of the century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90%.

Moreover, continued global warming will alter natural ecosystems and biological diversity within the state. For example, alpine and sub-alpine ecosystems are expected to decline by as much as 60% to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests is also expected to decrease as a result of global warming.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the state's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. Development of the site for urban uses and the corresponding generation of GHG emissions associated with buildout of the Tracy General Plan, including the project site, was taken into consideration in the City of Tracy General Plan and General Plan EIR. As described in Chapter 3 of the 2010 Recirculated Supplemental General Plan Draft EIR, the Tracy General Plan and Sustainability Action Plan include policies and measures to reduce GHG emissions, supporting the State's emission reduction targets and other environmental goals. In total, it is estimated that measures in the General Plan and Sustainability Action Plan would reduce 2020 business-as-usual (BAU) GHG emissions by between 382,422 and 486,115 metric tons CO₂e. Although the General Plan and Sustainability Action Plan include many goals, policies, and measures that would reduce GHG emissions from projected BAU levels, the Tracy General Plan would not meet the San Joaquin Valley Air Pollution Control District's threshold of a 29 percent reduction in GHG emissions from BAU projected emissions. Therefore, the General Plan and Sustainability Action Plan would result in a significant GHG emission impact.

On February 1, 2011 the Tracy City Council adopted a Statement of Overriding Considerations (Resolution 2011-028) for the significant generation of GHG emissions resulting from adoption of the General Plan.

The proposed project is identified for urban land uses in the Tracy General Plan. The proposed project is consistent with the overriding considerations that were adopted for the General Plan and the established mitigation measures under that Plan. As such, implementation of the proposed project would not create new impacts over and above those identified in the General Plan EIR, nor significantly change previously identified impacts. This is a **less-than-significant** impact.

Response b): Less than Significant. In February 2011, the City of Tracy adopted the Tracy Sustainability Action Plan, which includes programs and measures to reduce GHGs through community and municipal operations. Programs and measures contained in the Sustainability Action Plan that relate to the proposed project include, but are not limited to:

- **Measure E-1:** Implement California Green Building Standards, as contained in Title 24, Part 11, CCR.
- **Measure T-5 c and d:** Which promote the use of alternative transportation measures, including bikes and pedestrian travel, by providing connections to existing bike and pedestrian facilities.
- **Measure E-2 e:** Requiring energy efficient exterior lighting.

The City of Tracy will require the project to fully implement all applicable requirements of the Sustainability Action Plan. The proposed project would be constructed in compliance with the California Green Building Standards, and would install energy efficient exterior lighting. Implementation of the requirements of the Sustainability Action Plan, and other relevant policies in the Tracy General Plan represent the application of uniformly applied measures aimed at reducing GHG emissions from new development projects. This is a **less-than-significant** impact.

Project Requirement(s)

Project Requirement 10: *Prior to construction, the project applicant shall demonstrate compliance of all applicable requirements of the Sustainability Action Plan to the City of Tracy Development Services Department for review and approval.*

IX. HAZARDS AND HAZARDOUS MATERIALS -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. The proposed project would place a new fueling station and convenience store in an area of the City that currently contains predominantly residential and industrial uses. The proposed project would include underground fuel tanks (USTs), which would dispense fuels through 12 pumps. The underground storage of hazardous materials is subject to the provisions of the California Health and Safety Code Chapter 6.95 and Title 23 of the California Code of Regulations. The San Joaquin County Environmental Health Department has been authorized to administer the Hazardous Materials Business Plan Program as the Certified Unified Program Agency (CUPA) protect the public health from exposure to hazardous materials stored in the USTs, including protection of groundwater from being contaminated. Compliance with the San Joaquin County Environmental Health Department's Hazardous Materials Business Plan Program would ensure the potential impacts related to the release of hazardous materials into the environment would be less than significant.

The proposed fueling station would require the routine transport and use of hazardous materials as part of the operation. The transport of fuels to the project site would be required to adhere to the Hazardous Materials Regulations stipulated in the Code of Federal Regulation, Title 49, Parts 100-185, which regulates the transportation of hazardous material and hazardous waste. Therefore, the operational phase of the proposed project does not pose a significant hazard to the public or the environment.

Construction equipment and materials would likely require the use of petroleum-based products (oil, gasoline, diesel fuel), and a variety of common chemicals including paints, cleaners, and solvents. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, Project Requirement 13 (Hydrology and Water Quality) requires the project applicant to implement a SWPPP during construction activities, which would prevent any contaminated runoff from leaving the project site.

Overall, compliance with applicable federal, state, local statutes and regulations and preparation of the SWPPP provided in Project Requirement 13, would result in the project having a **less-than-significant** impact relative to this issue.

Response c): Less than Significant. The project site is not located within 1/4-mile of an existing school. The nearest sensitive receptor to the project site is Anthony Traina Elementary located approximately 750 yards (0.4 miles) to the northeast of the project site. Therefore, this is a **less-than-significant** impact

Response d): Less than Significant. According to the California Department of Toxic Substances Control (DTSC) there are no Federal Superfund Sites, State Response Sites, or Voluntary Cleanup Sites on, or adjacent to the project site. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5.

The nearest site to the proposed project is located approximately 1.7 miles southeast of the project site. Information relating to this site is provided below:

Tracy Tire Fire (site # 39000003)

- Cleanup Status: Refer: Integrated Waste Management Board (IWMB) as of 6/15/2009
- Site Type: State Response
- National Priorities List: No
- Acres: 50 acres
- Cleanup Oversight Agencies:
 - DTSC - Site Cleanup Program
 - IWMB (Lead Agency)
 - Regional Water Control Board 5S – Central Valley

As stated in the City's General Plan and General Plan EIR, developers are required to conduct the necessary level of environmental investigation prior to project approval to ensure that development sites would not affect the environment or the health or safety of future property owners (Objective SA-4.1, P2). The General Plan EIR concluded that this policy would reduce the potential impact to a less-than-significant level. Therefore, implementation of the proposed project would result in a **less-than-significant** impact relative to this environmental topic.

Responses e): Less than Significant. The Federal Aviation Administration (FAA) establishes distances of ground clearance for take-off and landing safety based on such items as the type of aircraft using the airport.

While there are no private airstrips within the vicinity of the project site, the Tracy Municipal Airport is located approximately ½ mile to the south (at its closest point). The Airport is a general aviation airport owned by the City and managed by the Public Works Department. The project site is located within the Tracy Municipal Airports (AIA) with portions also within the Traffic Pattern Zone (TPZ)-Zone 7, the Inner Turning Zone (ITZ)-Zone 3, and Inner Approach Departure Zone (IADZ)-Zone 2.

Pursuant to the State Aeronautics Act (Public Utilities Code Section 21676), the project is subject to a Consistency Determination by the San Joaquin County Airport Land Use Commission. The San Joaquin Council of Governments (SJCOG), acting as the Airport Land Use Commission (ALUC), has reviewed the application for the Edgewood Commercial project sent on October 2, 2019. In a letter issued by ALUC staff on October 16, 2019 (Isaiah Anderson, SJCOG Assistant Regional Planner), the San Joaquin ALUC noted that gas stations are prohibited in IADZ-Zone 2 and ITZ-Zone 3. However, after further review, SJCOG ALUC staff have determined that the gas station lies outside of these two zones within the TPZ-Zone 7. Therefore, ALUC has determined that the proposed land use designations for the Edgewood Commercial project are consistent with the 2018 San Joaquin County Airport Land Use Compatibility Plan's (ALUCP) safety zones and development criteria.

The following are recommendations, standards, and project design conditions specific to compliance with the ALUCP and are carried through as conditions of approval, as these are project design conditions that are required as part of compliance with the 2018 ALUCP:

1. Within the IADZ-Zone 2 and ITZ-Zone 3:

- No part of the gas station or related development (such as fuel storage) shall be located.
- An Avigation Easement shall be dedicated to the City of Tracy, as the owner of Tracy Municipal Airport, to convey rights associated with aircraft overflight of a property.

2. Airspace review is required for objects greater than 35 feet tall. Please notify the FAA by completing Form 7460-1, Notice of Proposed Construction of Alteration, available at: <https://www.faa.gov/forms/index.cfm/go/document.information/documentid/186273>.

The completed form should be sent to the FAA Western Pacific Region San Francisco Airports District Office, 1000 Marina Blvd., Ste. 220, Brisbane, CA 94005-1863.

3. New land uses that may cause visual, electronic, or increased bird strike hazards to aircraft in flight shall not be permitted within any airport's influence area. Specific characteristics to be avoided include:

- Glare or distracting lights which could be mistaken for airport lights. Reflective materials are not permitted to be used in structures or signs (excluding traffic directing signs);
- Sources of dust, steam, or smoke which may impair pilot visibility;
- Sources of electrical interference with aircraft communications or navigation. No transmissions which would interfere with aircraft radio communications or navigational signals are permitted.
- Occupied structures must be soundproofed to reduce interior noise to 45 decibel(dB) according to State guidelines.
- Within the airport's influence area, ALUC review is required for any proposed object taller than 100 feet above ground level (AGL).

4. Regardless of location within San Joaquin County, ALUC review is required in addition to FAA notification in accordance with Code of Federal Regulations, Part 77 for any proposal for construction or alteration under the following conditions:

- a. If requested by the FAA.
- b. Any construction or alteration that is more than 200 ft. AGL at its site.
- c. Any construction or alteration that exceeds an imaginary surface extending outward and upward at the following slopes:
 - i. 100 to 1 for a horizontal distance of 20,000 ft. of a public use or military airport from any point on the runway of each airport with its longest runway more than 3,200 ft.
 - ii. 50 to 1 for a horizontal distance of 10,000 ft. of a public use or military airport from any point on the runway of each airport with its longest runway no more than 3,200 ft.
 - iii. 25 to 1 for a horizontal distance of 5,000 ft. of the nearest take-off and landing area of a public use heliport.
- d. Any highway, railroad or other traverse way whose prescribed adjusted height would exceed the above noted standards

- e. Any construction or alteration located on a public use airport or heliport regardless of height or location.

Safety hazards related to the project's proximity to the Tracy Municipal Airport are **less than significant**, and no additional requirements, beyond the ALUC compliance requirements identified above, is required. The ALUC will review the project to ensure the proposed project would comply with all necessary requirements.

Response f): No Impact. The General Plan includes policies that require the City to maintain emergency access routes that are free of traffic impediments (Objective SA-6.1, P1 and A2). The proposed project does not include any actions that would impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. The project involves the development of commercial land uses within an urbanized environment, and would not interfere with any emergency response or evacuation plans. Implementation of the proposed project would result in **no impact** on this environmental topic.

Response g): Less than Significant. The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area to mass ratio and require more heat to reach the ignition point.

The City has areas with an abundance of flashy fuels (i.e., grassland) in the outlying residential parcels and open lands that, when combined with warm and dry summers with temperatures often exceeding 100 degrees Fahrenheit, create a situation that results in higher risk of wildland fires. Most wildland fires are human caused, so areas with easy human access to land with the appropriate fire parameters generally result in an increased risk of fire.

The California Department of Forestry has designated the western and southern edge of the City as having a moderate wildland fire potential. This is predominately a result of the hills and grassland habitat that persists. The proposed project is located in an urbanized area of the City adjacent to agricultural fields. The agricultural fields in the vicinity of the project site have a low to moderate wildfire potential. Irrigated agricultural lands that are actively farmed have a low wildland fire potential, while fallow fields that are not actively managed or irrigated have a moderate wildfire potential. The project site and the surrounding area is served by Fire Station #97, which is located at 595 West Central Avenue, approximately 2.3 miles (driving distance) northeast of the project site. The project site is located within the Fire Department's 5-minute response zone. The proximity of Fire Station #97 to the project site would ensure that in the event of a wildfire on agricultural lands west of the project site, the fire department could respond within five minutes. The project site is adequately served by roadways that provide emergency vehicle access to the site, and the site would be equipped with fire hydrants that meet the City of Tracy's design and fire flow requirements. This is a **less than significant** impact and no mitigation is required.

X. HYDROLOGY AND WATER QUALITY -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			X	
i) result in substantial erosion or siltation on- or off-site;			X	
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			X	
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems to provide substantial additional sources of polluted runoff; or			X	
iv) impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a): Less than Significant. Wastewater generated by the proposed project would be conveyed to the Tracy Wastewater Treatment Plan (WWTP) for treatment and disposal. The City's wastewater collection system consists of gravity sewer lines, pump stations and the 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 project's potential to violate a water quality standard or waste discharge requirement is related to the treatment of wastewater generated by the project, and the quality of stormwater runoff generated at the project site. These two issues are addressed below.

In 2008 the City expanded its wastewater treatment capacity to 10.8 million gallons per day (mgd). The City's Wastewater Treatment Plant (WWTP) currently treats approximately 9.0 mgd

of wastewater. The City's WWTP provides secondary-level treatment of wastewater followed by disinfection. Treated effluent from the WWTP is conveyed to a submerged diffuser for discharge into the Old River. The WWTP has an NPDES permit for discharge into the Old River from the State Regional Water Quality Control Board. A unit generation factor of 1,140 gallons per day of wastewater per acre a day was used to estimate the wastewater that would be generated by the proposed project.⁴ Based on this generation factor, it is estimated that the proposed project would generate up to 0.0027816 mgd of wastewater. The addition of 0.0027816 mgd of wastewater would not exceed the treatment capacity of the City's WWTP, or violate waste discharge requirements under the City's National Pollutant Discharge Elimination System (NPDES) permit. As such, the project would not cause, or contribute to, a violation of wastewater quality standards or waste discharge requirements.

In order to ensure that stormwater runoff from the project site does not adversely increase pollutant levels in adjacent surface waters and stormwater conveyance infrastructure, the City requires the application of BMPs to effectively reduce pollutants from stormwater leaving the site during both the construction and operational phases of the project. Additionally, projects are required to prepare a Stormwater Pollution Prevention Plan (SWPPP). The final storm drainage infrastructure plan for the project would also be submitted to the City for review and approval.

The collection of fees and determined fair share fee amounts are adopted by the City as Conditions of Approval (COAs) for all new development projects prior to project approval. The payment of applicable development impact fees by the proposed project would ensure that the project pays its fair-share of capital improvement fees towards future system expansions, as identified in the 2012 Tracy Wastewater Master Plan. Additionally, through compliance with the NPDES permit requirements, and compliance with the SWPPP, the proposed project would not result in a violation of any water quality standards or waste discharge requirements. Therefore, through compliance with the NPDES, the SWPPP required by Project Requirement 11, and the final storm drainage infrastructure plan required by Project Requirement 12, impacts are considered **less than significant**.

Project Requirement(s)

Project Requirement 11: *The project applicant shall prepare a Storm Water Pollution Prevention Plan (SWPPP) that includes specific types and sources of stormwater pollutants, determine the location and nature of potential impacts, and specify appropriate control measures to eliminate any potentially significant impacts on receiving water quality from stormwater runoff. The SWPPP shall require treatment BMPs that incorporate, at a minimum, the required hydraulic sizing design criteria for volume and flow to treat projected stormwater runoff. The SWPPP shall comply with the most current standards established by the Central Valley RWQCB. Best Management Practices shall be selected from the City's Manual of Stormwater Quality Control Standards for New Development*

⁴ Wastewater Flow and Loading Generation Factors from the Tracy Wastewater Master Plan (Office, Retail and Commercial Flow wastewater generation factor).

and Redevelopment according to site requirements and shall be subject to approval by the City Engineer and Central Valley RWQCB.

Project Requirement 12: *Prior to approval of the building permit, the project applicant shall submit a detailed storm drainage infrastructure plan to the City of Tracy Development Services Department for review and approval. The project's storm drainage infrastructure plans shall, to the satisfaction of the City Engineer, demonstrate adequate infrastructure capacity to collect and direct all stormwater generated on the project site within the onsite retention/detention facility to the City's existing stormwater conveyance system, and demonstrate that the project would not result in on- or off-site flooding impacts. The project shall also pay all applicable development impact fees, which would include funding for offsite Citywide storm drainage infrastructure improvements identified in the 2012 City of Tracy Citywide Storm Drainage Master Plan.*

Responses b): Less than Significant. The proposed project would not result in the construction of new groundwater wells, nor would it increase existing levels of groundwater pumping. The proposed project would be served by the City's municipal water system. The City of Tracy uses several water sources, including the US Bureau of Reclamation, the South County Water Supply Project (SCWSP), and groundwater.

The City's existing Groundwater Management Policy prohibits groundwater extraction to exceed 9,000 AF (the determined safe yield). The General Plan contains policies to address groundwater use and conservation that will assist in avoiding impacts to groundwater sources. The City will use surface water supplies to the greatest extent feasible to reduce reliance on groundwater (Objective PF-6.1, P3) and to reserve groundwater supplies for emergency use, such as droughts or short-term shortages (Objective PF-6.4, P1). As a result of adopted City policies and General Plan policies, a less-than-significant groundwater impact was determined by the General Plan EIR. The proposed project is consistent with land use designation and density analyzed under the General Plan EIR. Thus, the proposed project potential for groundwater depletion is consistent with the General Plan EIR finding of less than significant.

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 (such as roads, parking lots, buildings, etc.) can interfere with this natural groundwater recharge process. Upon full project buildout, portions of the project site would be covered in impervious surfaces, which would limit the potential for groundwater percolation to occur on the project site. However, given the relatively large size of the groundwater basin in the Tracy area, the areas of impervious surfaces added as a result of project implementation will not adversely affect the recharge capabilities of the local groundwater basin. Additionally, the project would maintain pervious surfaces within the on-site landscaping and retention basin. These pervious areas could maintain opportunities for groundwater recharge.

Because the City has adequate existing water service capacity to serve the project, and the limited scope of impervious surface coverage (when compared to the larger groundwater basin), the proposed project would result in **less-than-significant** impacts related to depletion of groundwater supplies and interference with groundwater recharge.

Responses c), e): When land is in a natural or undeveloped condition, precipitation will infiltrate/percolate the soils and mulch. Much of the rainwater that falls on natural or undeveloped land slowly infiltrates the soil and is stored either temporarily or permanently in underground layers of soil. When the soil becomes completely soaked or saturated with water or the rate of rainfall exceeds the infiltration capacity of the soil, the rainwater begins to flow on the surface of land to low lying areas, ditches, channels, streams, and rivers. Rainwater that flows off of a site is defined as storm water runoff. When a site is in a natural condition or is undeveloped, a larger percentage of rainwater infiltrates into the soil and a smaller percentage flows off the site as storm water runoff.

The infiltration and runoff process is altered when a site is developed with urban uses. Houses, buildings, roads, and parking lots introduce asphalt, concrete, and roofing materials to the landscape. These materials are relatively impervious, which means that they absorb less rainwater. As impervious surfaces are added to the ground conditions, the natural infiltration process is reduced. As a result, the volume and rate of storm water runoff increases. The increased volumes and rates of storm water runoff can result in flooding in some areas if adequate storm drainage facilities are not provided.

There are no rivers, streams, or water courses located on or immediately adjacent to the project site. As such, there is no potential for the project to alter a water course, which could lead to on or offsite flooding. Drainage improvements associated with the project site would be located on the project site, and the project would not alter or adversely impact offsite drainage facilities.

Development of the project site would place impervious surfaces on portions of the 2.44-acre project site. Development of the project site would potentially increase local runoff production, and would introduce constituents into storm water that are typically associated with urban runoff. These constituents include heavy metals (such as lead, zinc, and copper) and petroleum hydrocarbons. BMPs will be applied to the proposed site development to limit the concentrations of these constituents in any site runoff that is discharged into downstream facilities to acceptable levels. Stormwater flows from the project site would be directed to the proposed bio-retention areas by a new stormwater conveyance system.

In order to ensure that stormwater runoff from the project site does not adversely increase pollutant levels in adjacent surface waters and stormwater conveyance infrastructure, Project Requirement 11 requires the preparation of a SWPPP. As described previously, the SWPPP would require the application of BMPs to effectively reduce pollutants from stormwater leaving the site during both the construction and operational phases of the project.

Additionally, the project is subject to the requirements of Chapter 11.34 of the Tracy Municipal Code – Stormwater Management and Discharge Control. The purpose of this Chapter is to *“Protect and promote the health, safety and general welfare of the citizens of the City by controlling non-stormwater discharges to the stormwater conveyance system, by eliminating discharges to the stormwater conveyance system from spills, dumping, or disposal of materials other than stormwater, and by reducing pollutants in urban stormwater discharges to the maximum extent practicable.”*

This chapter is intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 USC Section 1251 et seq.), Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) and National Pollutant Discharge Elimination System (“NPDES”) Permit No. CAS000004, as such permit is amended and/or renewed.

New development projects in the City of Tracy are required to provide site-specific storm drainage solutions and improvements that are consistent with the overall storm drainage infrastructure approach presented in the 2012 City of Tracy Citywide Storm Drainage Master Plan. The project applicant is required to submit a detailed storm drainage infrastructure plan to the City of Tracy Development Services Department for review and approval. The project’s storm drainage infrastructure plans must demonstrate adequate infrastructure capacity to collect and direct all stormwater generated on the project site within the on-site retention facility to the City’s existing stormwater conveyance system and demonstrate that the project would not result in on- or off-site flooding impacts.

Prior to approval of the building permit, the project applicant is required to submit a detailed storm drainage infrastructure plan to the City of Tracy Development Services Department for review and approval. The project’s storm drainage infrastructure plans must demonstrate adequate infrastructure capacity to collect and direct all stormwater generated on the project site within onsite retention/detention facilities to the City’s existing stormwater conveyance system, and demonstrate that the project would not result in on- or off-site flooding impacts. The project is also required to pay all applicable development impact fees, which would include funding for offsite Citywide storm drainage infrastructure improvements identified in the 2012 City of Tracy Citywide Storm Drainage Master Plan. The development of an onsite storm drainage system, the payment of all applicable fees, and the implementation of Requirement 12 would ensure that this impact is less than significant.

A Preliminary Storm Drainage Evaluation Technical Memorandum (Storm Water Consulting Inc., January 2020) was prepared for the Project (see *Appendix B*), which included a review of the downstream capacity for the storm drain system residing within the Edgewood development. According to the Citywide Storm Drainage Master Plan, the Project site is a part of the existing Edgewood development area (totaling approximately 300 acres). The Edgewood development area includes Sub-Basins W14, W15, and W21 per the Citywide Storm Drainage Master Plan. The downstream capacity analysis evaluated the existing storm drain route extending between the Project and the headwater of the City’s Westside Channel within the Edgewood development. The existing storm drain route is shown in Exhibit A of the Preliminary Storm Drainage Evaluation (incorporated by reference). Under the assumption that all local Sub-Basins, including the Project (Sub-Basin EC), would contribute to the storm drain system, the analysis found that there would be a capacity deficiency along the existing 24-inch SD segment in English Oaks Avenue between Whispering Wind Drive and Cherry Blossom Drive. The capacity deficiency will produce surcharging from the storm drains into the streets in English Oaks Avenue and upstream during the design storm. To ensure adequate downstream capacity, the project proponent will need to

incorporate one of the alternatives recommended by Storm Water Consulting to the proposed storm drainage for the project. The alternatives have been included as Project Requirement 13. Additionally, the Preliminary Storm Drainage Evaluation also included a review of the Site Plan and Grading and Utility Plan provided by the applicant and provided preliminary storm water quality recommendations. According to the Memorandum, the plans are insufficient at this time and will require additional information with respect to storm drainage facilities. These information needs have been included in Project Requirement 14.

Ultimately, in order to ensure that stormwater runoff generated at the project site as a result of new impervious surfaces does not exceed the capacity of the existing or planned stormwater drainage system, Project Requirement 12 above requires the project applicant to submit a detailed storm drainage infrastructure plan to the City of Tracy Development Services Department for review and approval. The detailed storm drainage infrastructure plan will be required to incorporate Project Requirements 13 to ensure adequate downstream capacity. The project's storm drainage infrastructure plans shall, to the satisfaction of the City Engineer, demonstrate adequate infrastructure capacity to collect and direct all stormwater generated on the project site within the onsite retention/detention facility to the City's existing stormwater conveyance system, and demonstrate that the project would not result in on- or off-site flooding impacts. The implementation of this requirement would reduce this impact to a less-than-significant level.

Through the payment of all applicable fees, and the implementation of Project Requirements 12 through 14 would ensure that this impact is **less than significant**.

Project Requirement 13: *The project proponent shall incorporate one of the following improvements into the project site design:*

1. *Replace the existing 24-inch SD in English Oaks Avenue (Whispering Winds Drive to Cherry Blossom Lane) with a 30-inch SD, and discharge runoff from the Project site directly to the 18-inch SD stub provided at the northeast corner of the project site; or*
2. *Provide detention/retention storage within the Project site at storage volumes that conform to the requirements for Temporary Retention Basins, Single Parcel, Section 5.06, in the City of Tracy Design Standards (runoff volume from a single 10-year 48-hour storm). The detention/retention storage facility(s) could be drained to the 18-inch SD stub after storm events when the downstream system is empty, and regulated by a hand operated or automated sluice gate installed at an appropriate onsite location. Requirements for discharge authorizations would need to be established by the City.*

Project Requirement 14: *The project proponent shall revise the Site Plan and Grading and Utility Plan to include the following additional information:*

- *Existing topography of the overall site;*
- *Proposed grades for site improvements and invert elevations and slopes for proposed onsite storm drains;*

- *Invert elevation for the existing 24-inch SD in Middlefield Drive at the existing 18-inch SD stub connection from the site, and invert elevation for the existing 18-inch SD stub at the point of connection serving onsite storm drains; and*
- *Show detention/retention facility, required storage volume, provided storage volume, maximum water surface elevation, and provisions for drainage outflow, if applicable.*

Responses d): Less than Significant. 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 a site within the 100-year floodplain being flooded in any century is one percent but statistically the risk is almost 40 percent in any 50-year period.

Floodplain zones are determined by the Federal Emergency Management Agency (FEMA) and used to create Flood Insurance Rate Maps (FIRMs). These tools assist cities in mitigating flooding hazards through land use planning. FEMA also outlines specific regulations for any construction, whether residential, commercial, or industrial within 100-year floodplains.

The project site is not located within the FEMA designated 100-year floodplain. This is a **less than significant** impact and no mitigation is required.

XI. LAND USE AND PLANNING - Would the project:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a): No Impact. The project site is surrounded by residential and industrial uses. The project would be consistent and compatible with the surrounding land uses, and would not divide an established community. There is **no impact**.

Responses b): Less than Significant. The key planning documents that are directly related to, or that establish a framework within which the proposed project must be consistent, include:

- City of Tracy General Plan; and
- City of Tracy Zoning Ordinance.

The project site is currently designated Commercial by the City of Tracy General Plan Land Use Designations Map. 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 passthrough travelers. Specific uses allowed in the Commercial land use designation include grocery and convenience stores, auto service stations, salons, restaurants, and fast-food establishments to name a few. According to the City’s General Plan, Industrial parcels should have a maximum FAR of 1. The proposed project’s average FAR would be 0.063. Therefore, the proposed project is consistent and compatible with the Commercial land use designation. The project’s consistency with other General Plan policies that provide environmental protections are addressed within the relevant sections of this document.

The project site is currently zoned Planned Unit Development, which is designed to allow flexibility and creativity in site planning. The proposed project would include a rezone to Neighborhood Shopping to focus the uses on-site and implement the site’s Commercial land use designation. Changing the parcel’s zoning from PUD to NS would not result in any new or intensified development; thus, the rezone to NS is consistent with the previous analysis contained in the City of Tracy General Plan EIR for the site. Therefore, impacts to land use compatibility would be **less than significant**.

XII. MINERAL RESOURCES -- Would the project:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): No Impact. As described in the Tracy General Plan EIR, the main mineral resources found in San Joaquin County, and the Tracy Planning Area, are sand and gravel (aggregate), which are primarily used for construction materials like asphalt and concrete. According to the California Geological Survey (CGS) evaluation of the quality and quantity of these resources, the most marketable aggregate materials in San Joaquin County are found in three main areas:

- In the Corral Hollow alluvial fan deposits south of Tracy
- Along the channel and floodplain deposits of the Mokelumne River
- Along the San Joaquin River near Lathrop

Figure 4.8-1 of the General Plan EIR identifies Mineral Resource Zones (MRZs) throughout the Tracy Planning Area. The project site is located within an area designated as MRZ-2. The MRZ-2 designation applies to areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.

As described on page 4.8-4 of the Tracy General Plan Draft EIR, the City of Tracy has an agreement with the State Division of Mines and Geology that the area north of Linne Road would allow for urban development, while areas south of Linne Road would be protected for aggregate mining. Of the area classified by the State Division of Mines and Geology as having potentially significant mineral deposits, the bulk of it is designated by the City as Aggregate in the General Plan, with some additional areas that have potentially significant aggregate deposits designated as Industrial. Although the project is in an area where significant mineral deposits have a high likelihood of existing (MRZ-2), the project site is located north of Linne Road, in the area of the City designated for urban development. Since the City of Tracy has taken appropriate steps to safeguard its aggregate resources for future use, the project would not result in the loss of availability of a known mineral resource. This impact is considered **less than significant**.

XIII. NOISE -- WOULD THE PROJECT RESULT IN:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local planning criteria or ordinances, or substantially increase noise levels at noise-sensitive land uses.

The proposed project is located in an area consisting predominately of residential, agricultural, and industrial land uses. The proposed project involves the development of a 3,884 square foot convenience store with 12 vehicle fueling pumps. Convenience markets and gas service stations do not generate significant noise levels beyond those associated with common activities (i.e., car doors, voices, delivery truck unloading, etc.). However, traffic generated by the proposed project has the potential to contribute to roadway noise levels in the vicinity of the project site and throughout other areas of the City. According to the Edgewood Commercial Traffic Review (dated April 9, 2020) prepared by Kimley-Horn and Associates (Kimley-Horn), the proposed project is anticipated to generate 2,464 daily, 24 AM peak hour (14 in/10 out), and 14 PM peak hour (9 in/5 out) net new trips.

On February 1, 2011 the Tracy City Council adopted a Statement of Overriding Considerations (Resolution 2011-028) for the increase in vehicle roadway noise resulting from adoption of the General Plan and EIR. As described in this Draft EIR, vehicular traffic on existing roadways in Tracy would increase as development proceeds and the city's population increases. Under buildout of the General Plan, which includes the proposed project site, noise levels would increase substantially (3 A-weighted decibels [dBA] day/night average sound level [L_{DN}] or greater) along major roadways throughout Tracy, including portions of I-205, I-580, Grant Line Road, Schulte Road, Valpico Road, Linne Road, Lammers Road, Corral Hollow Road, Tracy

Boulevard, and MacArthur Drive. Other than Valpico Road and I-580, all significant increases would occur adjacent to existing noise sensitive areas. Given that the proposed project is consistent with the site's current General Plan land use designation, traffic generated by the project has been anticipated and evaluated by the City. Pursuant to Public Resources Code Section 21083.3, if a development project is consistent with the General Plan, the subsequent analysis of the project's environmental impacts would be limited to the effects on the environment which are peculiar to the project and which were not addressed as significant effects in the General Plan EIR.

The Tracy General Plan Noise Element also contains several policies that are intended to ensure that new development projects are not exposed to excessive noise levels. The General Plan Noise Element policies applicable to the proposed project are summarized below.

Objective N-1.1 Ensure appropriate exterior and interior noise levels for new land uses.

Policies

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.

P2. Land uses shall require appropriate interior noise environments when located in areas adjacent to major noise generators.

P3. Recognizing that some new single-family residential uses may be located adjacent to non-residential uses, new single-family residential development shall not exceed 60 L_{DN} (day/night average noise level) for exterior noise in private use areas.

P4. New residential uses exposed to noise levels exceeding 60 L_{DN} shall be analyzed following protocols in the operative California Building Code or other operative code.

P5. For new residential land uses, noise from external sources shall not cause building interiors to exceed 45 L_{DN} .

P7. New residential development affected by noise from railroads or aircraft operations shall be designed to limit typical maximum instantaneous noise levels to 50 dBA in bedrooms and 55 dBA in other rooms.

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.

Objective N-1.3 Consider noise issues in the Development Review process.

Policies

P1. Development projects shall be evaluated for potential noise impacts and conflicts as part of the Development Review process.

P2. Significant noise impacts shall be mitigated as a condition of project approval.

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.

P4. Proposed noise sensitive projects within noise-impacted areas shall submit acoustical studies and provide necessary mitigation from noise.

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.

The proposed project would be subject to these General Plan policies. As described previously, development of the site for urban uses and the subsequent increase in operational noise was taken into consideration in the City of Tracy General Plan and General Plan EIR.

It should be noted that construction activities at the project site would result in temporary increases in noise levels that could expose adjacent residences to increased noise levels and noise nuisances. During construction of the proposed project, heavy equipment would be used for grading, excavation, paving, and building construction, which would increase ambient noise levels when in use. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Table 9 shows the maximum noise levels associated with typical construction equipment. Based on the table, activities involved in typical construction could generate maximum noise levels up to 85 dB at a distance of 50 feet.

Table 9: Construction Equipment Noise

TYPE OF EQUIPMENT	MAXIMUM LEVEL, DB AT 50 FEET
Backhoe	78
Compactor	83
Compressor (air)	78
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Pneumatic Tools	85

SOURCE: FEDERAL HIGHWAY ADMINISTRATION, ROADWAY CONSTRUCTION NOISE MODEL USER'S GUIDE, JANUARY 2006.

As distance between equipment increases, dispersion and distance attenuation reduce the effects of combining separate noise sources. The noise levels from a source will decrease at a rate of approximately 6 dB per every doubling of distance from the noise source. Because the project site is adjacent to existing residential subdivisions, this temporary increase in construction noise is considered potentially significant. The following requirement would place restrictions on the time of day that construction activities can occur, and includes additional techniques to reduce noise levels at adjacent residences during construction activities. The implementation of this requirement would reduce this temporary impact to a **less-than-significant** level.

Project Requirement(s)

Project Requirement 15: *The following requirements shall be implemented during all construction phases of the project:*

- a) *Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the hours of 7:00 a.m. and 7:00 p.m. Construction activities shall be prohibited on Sundays and federal holidays.*
- b) *Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations.*
- c) *Construction equipment staging areas shall be located at the furthest distance possible from nearby noise-sensitive land uses.*

Response b): Less than Significant. No major stationary sources of groundborne vibration were identified in the project area that would result in the long-term exposure of proposed onsite land uses to unacceptable levels of ground vibration. In addition, the proposed project would not involve the use of any major equipment or processes that would result in potentially significant levels of ground vibration that would exceed these standards at nearby existing land uses. However, construction activities associated with the proposed project would require the use of various tractors, trucks, and potentially jackhammers that could result in intermittent increases in groundborne vibration levels. The use of major groundborne vibration-generating construction equipment/processes (i.e., blasting, pile driving) is not anticipated to be required for construction of the proposed project.

Groundborne vibration levels commonly associated with construction equipment are summarized in Table 10. Based on the levels presented in Table 10, groundborne vibration generated by construction equipment would not be anticipated to exceed approximately 0.09 inches per second (in/sec) peak particle velocity (ppv) at 25 feet. Predicted vibration levels would not be anticipated to exceed recommended criteria for structural damage and human annoyance (0.2 and 0.1 in/sec ppv, respectively) at nearby land uses. As a result, short-term groundborne vibration impacts would be considered **less-than-significant** and no mitigation is required.

Table 10: Representative Vibration Source Levels for Construction Equipment

<i>EQUIPMENT</i>	<i>PEAK PARTICLE VELOCITY AT 25 FEET (IN/SEC)</i>
Large Bulldozers	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozers	0.003

SOURCE: FTA 2006, CALTRANS 2004.

Response c): Less than Significant. The Tracy Municipal Airport is the closest airport to the project site, located less than ½ mile to the southeast of the project site. The Airport is a general aviation airport owned by the City and managed by the Public Works Department. The City of Tracy adopted an Airport Master Plan in 1998, and the ALUC adopted an ALUCP in 2009 after analyzing the impacts to safety on surrounding development from the Tracy Municipal Airport.

The San Joaquin County Airport Land Use Plan establishes noise contours surrounding the Tracy Municipal Airport. As shown on Figure 4.14-3 of the Tracy General Plan Final Supplemental EIR (Certified on February 1, 2011), the proposed convenience store and gas fueling station are located outside of both the 65 dBCNEL and the 60 dBCNEL noise contours for the Tracy Municipal Airport. According to Section 4.12.750 of the Tracy Municipal Code, the sound level limit for commercial districts is 65 dBCNEL. As such, the project site would not be exposed to excessive noise from the Tracy Municipal Airport. This is a **less than significant** impact, and no mitigation is required.

XIV. POPULATION AND HOUSING -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. The proposed commercial development would not induce population growth, either directly or indirectly. The convenience store and fueling station would not generate significant employment opportunities in Tracy and would not expand the job base such that population growth may occur.

The potential for the project to directly induce population growth in the City of Tracy is not a significant impact in and of itself. Population growth can result in impacts to other environmental topics, such as traffic, service demands, etc. The employment growth that would occur as a result of approval and development of the proposed project was considered in the Tracy General Plan and General Plan EIR. The proposed project is consistent with the land use designation for the site that was addressed in the General Plan EIR, and the environmental effects of the employment growth generated by the project were considered in the analysis of buildout of the Tracy General Plan. Additionally, as described throughout this environmental document, the employment growth attributable to the proposed project would not result in any significant site-specific environmental impacts to other environmental topics that cannot be mitigated to a less-than-significant level. Therefore, this impact is **less-than-significant**, as demonstrated throughout this document.

Responses b): No Impact. There are no existing homes or residences located on the project site. There is **no impact**.

XV. PUBLIC SERVICES

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?			X	
ii) Police protection?			X	
iii) Schools?			X	
iv) Parks?			X	
v) Other public facilities?			X	

*RESPONSES TO CHECKLIST QUESTIONS***Response a):**

i) Fire Protection and Emergency Medical Services: Less than Significant. The City of Tracy, as a member agency of the South San Joaquin County Fire Authority (SSJCFA), provides fire protection, life safety, and emergency response services to 167 square miles of the southern part of San Joaquin County. In 2018, the SSJCFA was established to more effectively and efficiently serve the City of Tracy and the Tracy Rural Fire Protection District (FPD) while allowing for future regionalization of fire protection services.

The SSJCFA currently operates six fire stations, a support services building, and an administrative office. Twenty-four hour-a-day staffing is provided with six paramedic engine companies, and one paramedic ladder truck company. Four fire stations are within the incorporated area of the City of Tracy, and two are in the surrounding rural Tracy area. The Fire Department maintains a repurposed unstaffed fire station that serves as support for operations and apparatus storage. Fire Stations 92 and 96 relocated in 2014 due to findings of a Standards of Cover study conducted in 2007. The repositioning of these facilities achieves more efficient fire protection coverage to the jurisdictional area of both the City and Rural Fire District.

The Fire Department completed an updated Standards of Cover study in May 2017. The study provided findings and recommendations as to where proposed fire stations should be located. The proposed project is located within the first-due response area of Fire Station #97, which is located at 595 West Central Avenue, greater than two miles northeast of the project site. The Standards of Cover study indicated that the project site is located outside of the Fire Department's established 4-minute travel time. The study recommends a new fire station should be added to the southwest City area, and Fire Station #97 should be moved to the southwest to improve first-due and multi-unit coverage.

Medical transport is provided by private ambulance company via contract with the San Joaquin County Emergency Medical Services Agency. American Medical Response (AMR) is the current exclusive emergency ambulance service provider in San Joaquin County. Escalon Community Ambulance, Manteca District Ambulance, and Ripon Consolidated Fire District are exceptions to the County's exclusive contract with AMR.

The Fire Department provides Advanced Life Support Services from all of its fire stations. Emergency medical services in Tracy and the surrounding areas are reported to be good, as Tracy is one of only three fire departments in San Joaquin County that provide Advanced Life Support services.

Recognizing the potential need for increases in fire protection and emergency medical services, the City's General Plan includes policies to ensure that adequate related facilities are funded and provided to meet future growth (Objective PF-1.1, P1). This policy will be implemented through the review of all new projects within the City, prior to development, and through the collection of development impact fees for the funding of facilities. The project will pay its proportionate fair share toward the construction of a nearby fire station to serve this and other development in the vicinity. Without the payment of applicable development impact fees, implementation of the proposed project may adversely impact existing fire and emergency services within the City and could require the construction of new fire protection facilities.

Impact fees from new development are collected based upon projected impacts from each development. The adequacy of impact fees is reviewed on an annual basis to ensure that the fee is commensurate with the service. Payment of the applicable impact fees by the project applicant as COAs prior to project approval, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the project, would fund capital and labor costs associated with fire protection services.

In order to provide adequate fire protection and suppression services to the project site, the Tracy Fire Department must have access to adequate onsite hydrants with adequate fire-flow pressure available to meet the needs of fire suppression units. The final site plans and development specifications developed for the proposed project will indicate the location and design specifications of the fire hydrants that will be required within the project site. Therefore, this is considered a **less-than-significant** impact.

ii) Police Protection: Less than Significant. The Tracy Police Department provides police protection services to the City of Tracy. Its headquarters are located at 1000 Civic Center Drive, and there are no satellite offices or plans to construct any in the near future.

The Department divides calls into three categories, Priority 1, 2, and 3 calls. 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. Average response time for Priority 1 calls within City limits is approximately six to eight minutes. Response time for Priority 2 and 3 calls is, on average, 22 minutes.

The Tracy 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.

Impact fees from new developments are collected based upon projected impacts from each development by the City as COAs prior to project approval. The adequacy of impact fees is reviewed on an annual basis to ensure that the fee is commensurate with the service. Payment of the applicable impact fees by the project applicant, and ongoing revenues that would come from property taxes, and other revenues generated by the project, would fund capital and labor costs associated with police services.

It is not anticipated that implementation of the proposed project would result in significant new demand for police services. Project implementation would not require the construction of new police facilities to serve the project site, nor would it result in impacts to the existing response times and existing police protection service levels. Furthermore, the City's General Plan ensures the City maintains adequate police staffing, performance levels and facilities to serve Tracy's existing population as well as any future growth (Goal PF-2, policy P.1). Therefore, this is considered a **less-than-significant** impact.

iii) Schools: Less than Significant. Implementation of the proposed project would result in modest employment growth within the City of Tracy, which may increase enrollment at schools within the Tracy Unified School District incrementally. The Tracy Unified School District collects impact fees from new developments under the provisions of SB 50. Payment of the applicable impact fees by the project applicant, and ongoing revenues that would come from taxes, would fund capital and labor costs associated with school services. The adequacy of fees is reviewed on an annual basis to ensure that the fee is commensurate with the service. Payment of the applicable impact fees by the project applicant, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the project, would fund improvements associated with school services and would ensure that project impacts to school services are **less than significant**.

iv) Parks: Potential project impacts to parks and recreational facilities are addressed in the following section of this document.

v) Other Public Facilities: Less than Significant. Other public facilities in the City of Tracy include libraries, hospitals, and cultural centers such as museums and music halls. The proposed project may increase demand on these facilities in a limited capacity. The City of Tracy General Plan requires new development to pay its fair share of the costs of public buildings by collecting the Public Buildings Impact Fee. The Public Buildings Impact fee is used by the City to expand public services and maintain public buildings, including the Civic Center and libraries in order to meet the increased demand generated by new development. Payment of the applicable impact fees by the project applicant, as COAs prior to project approval, and ongoing revenues that would come from taxes, would ensure that project impacts to libraries and public buildings are **less than significant**.

XVI. RECREATION

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. The proposed project would not increase demand for parks and recreational facilities within the City of Tracy and would not increase the use of the City’s existing parks and recreation system. The City of Tracy requires the payment of the project’s fair share in-lieu parks fees, as required by the City’s General Plan. The collection of fees and determined fair share fee amounts are adopted by the City as COAs for all new development projects prior to project approval. Fees paid aid in the development of new park-space and maintenance as required, to ensure continued high quality park facilities for all City residents. As such, this is a **less-than-significant** impact.

XVII. TRANSPORTATION/TRAFFIC -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a), b): Less than Significant. The proposed project includes the construction of a 3,884 square foot convenience store, 6 fueling islands (12 gas pumps), seven electric vehicle charging stations, and 20 parking stalls. Site access will be provided by two driveways: one along Corral Hollow Road and one along Middlefield Drive. The proposed project is consistent with the General Plan land use designation for the site and is consistent with the assumed density level for development of the site.

A Traffic and Engineering Review Memorandum (dated April 9, 2020) was prepared by Kimley-Horn for the proposed project, which can be found in *Appendix C*. The Edgewood Commercial Traffic Review analyzed the proposed project under Existing Conditions and Background plus Project Conditions, as well as included a trip generation and distribution analysis, a review of the proposed driveway access, a queuing analysis, and a review of site circulation.

Development of the proposed project would add vehicle trips to the City's roadway network along Corral Hollow Road. In November 2016, the City adopted the Corral Hollow Plan Line to identify roadway facility and intersection improvements needed to accommodate the traffic generated by buildout of the City's General Plan along the Corral Hollow Corridor. Kimley-Horn reviewed the proposed site plan to determine if the proposed project's network improvements are consistent with the Corral Hollow Plan Line. The proposed project will be required to match its frontage improvements with Section E (proposed Corral Hollow Cross Section) of the Corral Hollow Plan Line. Additionally, to reduce queues at Middlefield Drive Kimley-Horn recommended a number of improvements, including restriping of lanes, addition of a second turn lane, and median modifications. These improvement recommendations to the external network and Middlefield Drive have been included in Project Requirement 16.

Trip generation for the proposed project was calculated using trip generation rates contained in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition for Gasoline/Service Station with Convenience Market (LUC 945). The proposed project is

anticipated to generate 2,464 daily, 24 AM peak hour (14 in/10 out), and 14 PM peak hour (9 in/5 out) net trips. The number of trips resulting from the project site was accounted for in the City's General Plan EIR.

The study focused on evaluating traffic conditions at the following three intersections:

1. Middlefield Drive and Waterstone Apartments/Project Driveway #1
2. Corral Hollow Road and Middlefield Drive/Summit Drive
3. Corral Hollow Road and Project Driveway #2

Under both the Existing and Background plus Project conditions, the Corral Hollow Road and Middlefield Drive/Summit Drive intersection is the only intersection found to fall below Level of Service (LOS) standards. Congestion currently occurs at the Corral Hollow Road and Middlefield Drive intersection in the southbound direction and the westbound direction in the mornings. The LOS results do not reflect this due to oversaturated traffic conditions and the counted cars being based on capacity not true demand. Therefore, even though the LOS analysis at the intersection of Corral Hollow Road and Middlefield Drive is acceptable, field observations indicate the AM peak and demand exceeds capacity resulting in the intersection operating below LOS standards. Table 11 illustrates the LOS results and delay under the Existing Conditions and Background plus Project Conditions. Kimley-Horn provided several comments regarding the design of the Corral Hollow Road and Middlefield Drive intersection to improve the operations, which have been included in Project Requirement 16.

Table 11: Corral Hollow Road and Middlefield Drive/Summit Drive LOS Results

LOS STANDARD	CONTROL TYPE	AM PEAK HOUR			PM PEAK HOUR		
		MOVEMENT	DELAY	LOS	MOVEMENT	DELAY	LOS
<i>Existing (2019) Conditions LOS Results</i>							
D	Signal	--	32.8	C	--	16.2	B
<i>Background plus Project Conditions LOS Results</i>							
D	Signal	--	40.5	D	--	17.3	B

NOTE: DELAY = SECONDS/VEHICLE.

SOURCE: KIMLEY-HORN, APRIL 2020.

The queuing analysis found that queuing occurs in the southbound direction of Corral Hollow Road due to the lane drop immediately north of the Corral Hollow Road and Middlefield Drive intersection. The westbound left turn queues also exceeded capacity, partially due to cut through traffic from the east. Based on this queuing, Kimley-Horn provided several striping, median, and signal modification improvement recommendations. In addition, Kimley-Horn provided several recommendations to the designs of both driveways, as well as comments to improve the overall internal circulation of the site. These recommendations have also been included in Project Requirement 16.

The collection of fees and determined fair share fee amounts are adopted by the City as COAs for all new development projects prior to project approval. The payment of applicable traffic impact fees by the proposed project would ensure that the project pays its fair-share of capital improvement fees towards the future transportation system improvements and expansions. The

payment of these fair-share traffic impact fees would assist the City of Tracy with implementation of the various improvements identified in the Transportation Master Plan and Corral Hollow Plan Line, in order to maintain acceptable levels of service throughout the City.

Implementation of Project Requirement 16 and the payment of applicable traffic impact fees would ensure that project-related traffic impacts are **less than significant**.

Project Requirement(s)

Project Requirement 16: *The project proponent shall incorporate the following improvements into the project site design:*

1. *General Recommendation:*
 - *Add centerline striping in the main drive aisle.*
2. *Driveway 1 (Middlefield Driveway):*
 - *Add stop sign, limit line, and pavement markings.*
 - *Restripe to one incoming lane for the interim condition.*
 - *The driveway will be wider than the 34-foot commercial driveway maximum (City of Tracy Design Standard 3.09(B)). This will require a design exception if acceptable.*
 - *Convert the driveway curb returns to driveway flares. The existing driveway may need to be constructed to be ADA-compliant.*
3. *Driveway 2 (Corral Hollow Driveway):*
 - *Add a stop sign, right turn only signal sign (CAMUTCD Sign R3-5(R)), limit line, stop pavement markings, and right turn arrow pavement marking.*
 - *Add “tuff curb”, or similar product, in the Corral Hollow Road painted median to deter left turn movements in and out of the driveway.*
 - *The driveway will be wider than the 34-foot commercial driveway maximum (City of Tracy Design Standard 3.09(B)). This will require a design exception if acceptable.*
 - *Convert the driveway curb returns to driveway flares. The existing driveway may need to be constructed to be ADA-compliant.*
 - *Conform to the Corral Hollow Plan Line – Section E (November 7, 2016) along Project frontage.*
 - *Provide the following lane geometry at the intersection of Corral Hollow Middlefield Drive/Summit Drive (in conformance with the Corral Hollow Plan Line)*
 - *12-foot northbound right turn pocket*
 - *6-foot northbound bike slot*
 - *Two 11-foot northbound through lanes*
4. *Corral Hollow and Middlefield Intersection:*
 - *Stripe the existing westbound through/right lane to a left/through/right lane. The addition of a second left turn lane will improve operations*

Responses c, d): Less than Significant. Site access and circulation for the proposed project was addressed in the Edgewood Commercial Traffic Review prepared by Kimley-Horn (April 9, 2020). Kimley-Horn found that, with the above referenced project requirements and improvements, the proposed site access is adequate and will not have any on-site operational issues. The proposed

access driveways from Middlefield Drive and Corral Hollow Road are also projected to be adequate for vehicles accessing the site, including emergency vehicles and other service vehicles.

Implementation of the proposed project would have a less-than-significant impact related to emergency access and would not interfere with an emergency evacuation plan. Therefore, this is considered a **less-than-significant** impact.

XVIII. TRIBAL CULTURAL RESOURCES

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?			X	
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a-b): There is a potential for the discovery of prehistoric, ethnohistoric, or historic archaeological sites that may meet the definition of Tribal Cultural Resources (TCRs). Although no TCRs have been documented on the project site, the project is in a region where significant cultural resources have been recorded and there remains a potential that undocumented archaeological resources that may meet the TCR definition could be unearthed or otherwise discovered during ground-disturbing and construction activities. Examples of significant archaeological discoveries that may meet the TCR definition would include villages and cemeteries. Due to the possible presence of undocumented TCRs within the project site, construction-related impacts on tribal cultural resources may occur.

Project Requirement 8 would require appropriate steps to preserve and/or document any previously undiscovered resources that may be encountered during construction activities, including human remains. Implementation of this requirement would reduce this impact to a **less-than-significant** level.

XIX. UTILITIES AND SERVICE SYSTEMS -- WOULD THE PROJECT:

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?			X	
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reductions goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), c): Less than Significant. Wastewater generated by the proposed project would be conveyed to the Tracy Wastewater Treatment Plan (WWTP) for treatment and disposal. The City’s wastewater collection system consists of gravity sewer lines, pump stations and the 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 City’s WWTP provides secondary-level treatment of wastewater followed by disinfection. Treated effluent from the WWTP is conveyed to a submerged diffuser for discharge into the Old River. The WWTP has an NPDES permit for discharge into the Old River from the State Regional Water Quality Control Board. The City of Tracy expanded the treatment capacity to 10.8 million gallons per day (mgd) in 2008.

As discussed in the Hydrology and Water Quality section, a unit generation factor of 1,140 gallons per day of wastewater per acre a day was used to estimate the wastewater that would be generated by the proposed project.⁵ Based on this generation factor, it is estimated that the proposed project would generate up to 0.0027816 mgd of wastewater. The addition of 0.0027816 mgd of wastewater would not exceed the treatment capacity of the City’s WWTP, or

⁵ Wastewater Flow and Loading Generation Factors from the Tracy Wastewater Master Plan (Office, Retail and Commercial Flow wastewater generation factor).

violate waste discharge requirements under the City's National Pollutant Discharge Elimination System (NPDES) permit. Additionally, the Tracy General Plan EIR determined that no significant wastewater-related impacts were identified as a result of buildout of the General Plan. Because the project is consistent with the intended uses allowed under the General Plan no impacts beyond those identified should result from implementation of the proposed project. As such, the project would not cause, or contribute to, a violation of wastewater quality standards or waste discharge requirements.

Development of the project site would place impervious surfaces on the majority of the 2.44-acre project site. Development of the project site would potentially increase local runoff production and would introduce constituents into storm water that are typically associated with urban runoff. These constituents include heavy metals (such as lead, zinc, and copper) and petroleum hydrocarbons. BMPs will be applied to the proposed site development to limit the concentrations of these constituents in any site runoff that is discharged into downstream facilities to acceptable levels.

Permanent onsite storm drainage would be installed to serve the proposed project. The potential environmental impacts of construction of the onsite storm drainage system are addressed throughout this Initial Study, given that all improvements would occur onsite, within the area proposed for disturbance. As described above under the Hydrology and Water Quality Section, new development projects in the City of Tracy are required to provide site-specific storm drainage solutions and improvements that are consistent with the overall storm drainage infrastructure approach presented in the 2012 City of Tracy Citywide Storm Drainage Master Plan. Prior to approval of the building permit, the project applicant is required to submit a detailed storm drainage infrastructure plan to the City of Tracy Development Services Department for review and approval (Project Requirement 12). The detailed storm drainage infrastructure plan will be required to include one of the infrastructure alternatives recommended by Storm Water Consulting to ensure adequate downstream capacity (Project Requirement 13). The project's storm drainage infrastructure plans must demonstrate adequate infrastructure capacity to collect and direct all stormwater generated on the project site within the onsite retention/detention facility to the City's existing stormwater conveyance system, and demonstrate that the project would not result in on- or off-site flooding impacts.

The project is also required to pay all applicable development impact fees, which would include funding for offsite Citywide storm drainage infrastructure improvements identified in the 2012 City of Tracy Citywide Storm Drainage Master Plan. The collection of fees and determined fair share fee amounts are adopted by the City as COAs for all new development projects prior to project approval. The adequacy of impact fees is reviewed on an annual basis to ensure that the fee is commensurate with the service.

Overall, this is a **less than significant** impact.

Responses b): Less than Significant. The City of Tracy obtains water from both surface water and groundwater sources. The amount of water that Tracy uses from each of its water supply sources to make up its total water use varies from year to year based on contractual agreements, annual precipitation, and City policies about how to expand, utilize, and manage its water resources. As described in the 2015 City of Tracy Urban Water Management Plan, Tracy's maximum annual water supply amounts to over 33,600 acre-feet per year (afy) from its various supply sources.

Potable water for the proposed project would be supplied from the City's municipal water system. The project site would receive potable water via a connection to existing water mains located Middlefield Drive. The project proposes three connections to this existing 8-inch diameter water distribution main: one domestic water meter/service lateral to serve the proposed convenience store, one water stub for future development, and one water meter/service lateral for irrigation to serve the landscaping. The proposed project's water demand was included in the demand calculations for the 2012 Citywide Water System Master Plan.

The 2012 Citywide Water System Master Plan provides an evaluation of the required backbone potable and recycled water infrastructure required to serve buildout of the City's General Plan. The 2012 Citywide Water System Master Plan analyzed the future water demand for the project site, which assumed the development of a commercial building with a FAR of 0.3 and a water demand factor of 2.0 acre-feet per acre per year (af/ac/yr). It should be noted that this water demand factor of 1.5 af/ac/yr is only be applied to 85 percent of the total gross acres of the project site because it was assumed that 15 percent of all commercial sites would be landscaped and utilize recycled water. Therefore, the 2012 Citywide Water Systems Master Plan estimated the future water demand on site to be approximately 4.148 af/ac/yr. The proposed project includes the development of a convenience store and gas service station with a FAR of 0.063. Because the proposed project includes the development of a commercial building with a much smaller FAR, it is fair to assume that the project's proposed water demand would be less than what was assumed in the 2012 Citywide Water Systems Master Plan and General Plan EIR. Therefore, there should be sufficient and adequate water supplies available to serve the project during normal, dry and multiple dry years.

Additionally, the project applicant would be required to pay all applicable development impact fees, which would include funding for offsite Citywide water infrastructure improvements identified in the 2012 City of Tracy Citywide Water System Master Plan. The collection of fees and determined fair share fee amounts are adopted by the City as COAs for all new development projects prior to project approval. The payment of applicable development impact fees by the proposed project would ensure that the project pays its fair-share of capital improvement fees towards future system expansions, as identified in the 2012 Citywide Water System Master Plan.

Overall, this is a **less-than-significant** impact.

Responses d) and e): Less than Significant. The City of Tracy has an exclusive franchise agreement with Tracy Disposal Service for solid waste collection and disposal and recycling collection. 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 capacity of approximately 1,000 tons per day, but averages approximately 350 tons per day, of which 85 percent is generated in Tracy. Approximately 175,000 tons of solid waste is generated in Tracy each year, of which approximately 27 percent is residential garbage.

The approximately 800-acre Foothill landfill, owned by San Joaquin County, is the primary disposal facility accepting the City's solid waste. The Foothill landfill receives approximately 810 tons per day. The landfill is permitted to accept up to 1,500 tons per day, and has a permitted capacity of 138 million cubic yards, of which approximately 125 million cubic yards of capacity remains. It is estimated that the Foothill landfill will have the capacity to accept solid waste from the City of Tracy until 2054.

The proposed project would not generate significant volumes of solid waste, beyond levels normally found in gas service station developments. Using CalRecycle's service station solid waste generation rate of 0.9 pounds per 100 sf per day, the 3,884-sf convenience store and 2,880 sf fueling island is expected to produce approximately 608.76 pounds per day. The addition of the solid waste generated by the project would not exceed the capacity of the local landfills.

As described above, there is adequate landfill capacity to serve the proposed project, and the project will comply with all applicable statutes and regulations related to solid waste. This is a **less-than-significant** impact.

XX. WILDFIRE

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

Existing Setting

The California Department of Forestry and Fire Protection (Cal Fire) has designated the southern portion of the City along Interstate 580 as a Local Responsibility Area (LRA), which is within the Moderate Fire Hazard Severity Zone (MFHSZ) with a small portion along the southern most City limits within the High Fire Hazard Severity Zone (HFHSZ). This rating does not extend to the project site; as such, the site is not in or near land classified as a Very High Fire Hazard Severity Zone (VHFHSZ). Additionally, the proposed project is not located within a State Responsibility Area (SRA). Although this CEQA topic only applies to areas within an SRA or VHFHSZ, out of an abundance of caution, these checklist questions are analyzed below.

Responses to Checklist Questions

Response a): The project site would connect to an existing network of City streets. The nearest Cal Fire Station (Cal Fire Station 26 – Castle Rock) is located approximately 3.7 miles to the northwest of the project site and the nearest Tracy Fire Station (Tracy Fire Station 97) is located approximately 1.47 miles northeast of the project site. The proposed circulation improvements implemented by Project Requirement 17 would ensure the appropriate turning radiuses have been planned to accommodate fire trucks onsite as well as allow for greater emergency access relative to existing conditions. Moreover, the proposed project would require building construction to meet the fire code requirements, and would have fire hydrants consistent with the standards of the City; such fire hydrants would assist with fire suppression efforts if a fire was to occur on or near the project site. Therefore, impacts from project implementation would be considered *less than significant* relative to adopted emergency response plans or evacuation

plans. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response b): The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The project site is located in an area that is predominately residential, agricultural, and industrial, which is not considered at a significant risk of wildfire. There are no steep slopes on or near the project site. Development of the project would not exacerbate fire risks. Therefore, impacts from project implementation would be considered *less than significant* relative to the spread of wildfire. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response c): The project includes development of infrastructure (water, sewer, and storm drainage) to serve the proposed convenience store and service station. The project does not include the construction of fuel breaks, emergency water sources, or power lines. As noted above, the proposed project would require fire hydrants consistent with the standards of the City, and such fire hydrants would assist with fire suppression efforts if a fire was to occur. The proposed infrastructure improvements would allow for decreased fire risk relative to existing conditions. Therefore, impacts from project implementation would be considered *less than significant* relative to infrastructure that may exacerbate fire risk. This topic does not warrant additional analysis and will not be addressed further in the EIR.

Response d): The proposed project would require the installation of storm drainage infrastructure to ensure that storm waters properly drain from the project site and does not result in downstream flooding or major drainage changes. As previously stated in the Hydrology and Water Quality section, through the payment of all applicable fees, and the implementation of Project Requirements 13 through 16, the proposed storm drainage plan infrastructure would control runoff and prevent flooding, erosion, and sedimentation.

Runoff from the project site currently flows to the existing City storm drains located in Middlefield Drive. Upon development of the site, stormwater would flow to the on-site retention basins and/or the existing storm drains in the adjacent roadways. Additionally, the project site is located within FEMA Zone X (un-shaded), indicating that the site is located outside of the 100-year flood hazard zone.

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. The project site is relatively flat with an elevation ranging from approximately 165 feet to 157 feet above MSL. Upon development of the project, the site would be graded to further flatten the project site. The project would also be required to comply with the provisions of the California Building Standard's Code, which requires development projects to perform geotechnical investigations in accordance with State law, which include general engineering characteristics of the subsurface conditions within the project site and potential mitigation

strategies to address any geotechnical concerns or potential hazards (such as slope failure). Therefore, the potential for a landslide (including rockfalls, deep slope failure, and shallow slope failure) on the project site is low.

Overall, impacts from project implementation would be considered **less than significant** relative to risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. This topic does not warrant additional analysis and will not be addressed further in the EIR.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE --

	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporation</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. As described throughout the analysis above, the proposed project would not result in any significant impacts that would substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal to the environment.

All potentially significant impacts related to plant and animal species would be reduced to a less-than-significant level through the application of uniformly applied development policies and/or standards. The proposed project is required to implement a range of standard and uniformly applied development policies and standards, most of which are identified in the Tracy General Plan or various infrastructure master plans, which would reduce any potentially significant impacts to a less-than-significant level. The cumulative impacts associated with development of the project were considered, analyzed and disclosed in the City of Tracy General Plan and General Plan EIR. On February 1, 2011 the Tracy City Council adopted a Statement of Overriding Considerations (Resolution 2011-028) for all significant impacts associated with buildout of the Tracy General Plan. The project would not result in any cumulative impacts that were not contemplated in the General Plan EIR. The project would not result in any peculiar site-specific impacts, impacts to biological resources or impacts to cultural and/or historical resources.

The proposed project would implement requirements aimed at reducing stormwater pollutants and runoff, as well as through compliance of various state, regional and local standards. Specifically related to ensuring the continued sustainability of biological resources through

adaptive management, Project Requirement 5 ensures the project proponent seeks coverage under the SJMSCP to mitigate for habitat impacts to covered special status species. Through the application of uniformly applied development policies and/or standards, the project would not result in any cumulative impacts related to biological resources. Therefore, these are **less-than-significant** impacts.

Response b): Less than Significant. The General Plan EIR assumed full development and buildout of the project site, consistent with the use and density proposed by the project. The cumulative impacts associated with buildout of the City of Tracy General Plan, including the project site, were fully addressed in the General Plan EIR. Additionally, as described throughout the analysis above, the proposed project would not result in any significant individual or cumulative impacts that would not be reduced to less-than-significant levels through the application of uniformly applied development policies and/or standards. Therefore, this is considered a **less-than-significant** impact.

Response c): Less than Significant. As described throughout the analysis above, the proposed project would not result in any significant impacts that would have environmental effects which will cause substantial adverse effects on humans. The analysis in the relevant sections above provides the application of uniformly applied development policies and/or standards reduce any potentially significant impacts on humans to less-than-significant levels. A variety of requirements including those related to aesthetics and light and glare, GHG and air quality, cultural resources, hazardous materials, seismic hazards, water pollution and water quality, and noise, ensure any adverse effects on humans are reduce to an acceptable standard. Therefore, this is considered a **less-than-significant** impact.

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APPENDIX A

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San Joaquin County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	4.50	1000sqft	0.10	4,495.00	0
Convenience Market (24 Hour)	3.88	1000sqft	0.09	3,884.00	0
Gasoline/Service Station	12.00	Pump	0.04	2,880.00	0
Other Asphalt Surfaces	63.11	1000sqft	1.45	63,113.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	51
Climate Zone	2			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Description:

3,884 square foot convenience store with 12 gas pums (2,880 square foot fueling area)

27 9'x18.5' parking spaces = 4,495 square feet

Other paved surfaces includes driveways and sidewalks: 63,113 square feet

Construction Phase -

Vehicle Trips - Vehicle Trips= Refer to Kimley-Horn Traffic Study Trip Generation

Land Use Change - Project site is 2.49 acres. 1.70732 acres being developed as part of the project leaving 0.74268

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Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	4,500.00	4,495.00
tblLandUse	LandUseSquareFeet	3,880.00	3,884.00
tblLandUse	LandUseSquareFeet	1,694.10	2,880.00
tblVehicleTrips	DV_TP	27.00	29.00
tblVehicleTrips	PR_TP	14.00	12.00
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	ST_TR	168.56	205.36
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	SU_TR	168.56	205.36
tblVehicleTrips	WD_TR	737.99	0.00
tblVehicleTrips	WD_TR	168.56	205.36

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-3-2020	11-2-2020	0.4340	0.4340
2	11-3-2020	2-2-2021	0.5903	0.5903
3	2-3-2021	5-2-2021	0.5395	0.5395
4	5-3-2021	8-2-2021	0.3755	0.3755
		Highest	0.5903	0.5903

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0370	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Energy	5.3000e-004	4.8600e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	26.1486	26.1486	1.0400e-003	2.9000e-004	26.2617
Mobile	0.5722	3.3805	3.5846	9.7100e-003	0.4966	9.0000e-003	0.5056	0.1331	8.4500e-003	0.1416	0.0000	898.6019	898.6019	0.0926	0.0000	900.9171
Waste						0.0000	0.0000		0.0000	0.0000	3.6802	0.0000	3.6802	0.2175	0.0000	9.1176
Water						0.0000	0.0000		0.0000	0.0000	0.1417	0.9821	1.1239	0.0146	3.5000e-004	1.5941
Total	0.6097	3.3854	3.5895	9.7400e-003	0.4966	9.3700e-003	0.5059	0.1331	8.8200e-003	0.1420	3.8220	925.7341	929.5560	0.3258	6.4000e-004	937.8921

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2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	-7.5310
Total	-7.5310

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/29/2020	9/1/2020	5	2	
2	Grading	Grading	9/2/2020	9/7/2020	5	4	
3	Building Construction	Building Construction	9/8/2020	6/14/2021	5	200	
4	Paving	Paving	6/15/2021	6/28/2021	5	10	
5	Architectural Coating	Architectural Coating	6/29/2021	7/12/2021	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 1.55

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Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 10,146; Non-Residential Outdoor: 3,382; Striped Parking Area: 4,056 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	31.00	12.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0184	7.7100e-003	2.0000e-005		8.2000e-004	8.2000e-004		7.6000e-004	7.6000e-004	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249
Total	1.6300e-003	0.0184	7.7100e-003	2.0000e-005	5.8000e-003	8.2000e-004	6.6200e-003	2.9500e-003	7.6000e-004	3.7100e-003	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249

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3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0565	0.0565	0.0000	0.0000	0.0566
Total	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0565	0.0565	0.0000	0.0000	0.0566

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0184	7.7100e-003	2.0000e-005		8.2000e-004	8.2000e-004		7.6000e-004	7.6000e-004	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249
Total	1.6300e-003	0.0184	7.7100e-003	2.0000e-005	5.8000e-003	8.2000e-004	6.6200e-003	2.9500e-003	7.6000e-004	3.7100e-003	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249

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3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0565	0.0565	0.0000	0.0000	0.0566
Total	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0565	0.0565	0.0000	0.0000	0.0566

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-003	0.0302	0.0129	3.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980
Total	2.7000e-003	0.0302	0.0129	3.0000e-005	9.8300e-003	1.3700e-003	0.0112	5.0500e-003	1.2600e-003	6.3100e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980

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3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	4.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1130	0.1130	0.0000	0.0000	0.1131
Total	6.0000e-005	5.0000e-005	4.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1130	0.1130	0.0000	0.0000	0.1131

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-003	0.0302	0.0129	3.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980
Total	2.7000e-003	0.0302	0.0129	3.0000e-005	9.8300e-003	1.3700e-003	0.0112	5.0500e-003	1.2600e-003	6.3100e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980

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3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	5.0000e-005	4.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1130	0.1130	0.0000	0.0000	0.1131
Total	6.0000e-005	5.0000e-005	4.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1130	0.1130	0.0000	0.0000	0.1131

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0843	0.6137	0.5473	9.1000e-004		0.0330	0.0330		0.0319	0.0319	0.0000	75.3400	75.3400	0.0140	0.0000	75.6896
Total	0.0843	0.6137	0.5473	9.1000e-004		0.0330	0.0330		0.0319	0.0319	0.0000	75.3400	75.3400	0.0140	0.0000	75.6896

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3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0589	0.0125	1.4000e-004	3.2900e-003	3.2000e-004	3.6100e-003	9.5000e-004	3.1000e-004	1.2600e-003	0.0000	13.3763	13.3763	8.3000e-004	0.0000	13.3970
Worker	5.1300e-003	3.6900e-003	0.0364	1.0000e-004	0.0103	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7900e-003	0.0000	9.0877	9.0877	2.5000e-004	0.0000	9.0940
Total	7.1500e-003	0.0626	0.0489	2.4000e-004	0.0135	3.9000e-004	0.0139	3.6700e-003	3.7000e-004	4.0500e-003	0.0000	22.4640	22.4640	1.0800e-003	0.0000	22.4910

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0843	0.6137	0.5473	9.1000e-004		0.0330	0.0330		0.0319	0.0319	0.0000	75.3399	75.3399	0.0140	0.0000	75.6895
Total	0.0843	0.6137	0.5473	9.1000e-004		0.0330	0.0330		0.0319	0.0319	0.0000	75.3399	75.3399	0.0140	0.0000	75.6895

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0589	0.0125	1.4000e-004	3.2900e-003	3.2000e-004	3.6100e-003	9.5000e-004	3.1000e-004	1.2600e-003	0.0000	13.3763	13.3763	8.3000e-004	0.0000	13.3970
Worker	5.1300e-003	3.6900e-003	0.0364	1.0000e-004	0.0103	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7900e-003	0.0000	9.0877	9.0877	2.5000e-004	0.0000	9.0940
Total	7.1500e-003	0.0626	0.0489	2.4000e-004	0.0135	3.9000e-004	0.0139	3.6700e-003	3.7000e-004	4.0500e-003	0.0000	22.4640	22.4640	1.0800e-003	0.0000	22.4910

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1060	0.7977	0.7546	1.2900e-003		0.0400	0.0400		0.0387	0.0387	0.0000	106.2054	106.2054	0.0190	0.0000	106.6794
Total	0.1060	0.7977	0.7546	1.2900e-003		0.0400	0.0400		0.0387	0.0387	0.0000	106.2054	106.2054	0.0190	0.0000	106.6794

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3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3300e-003	0.0752	0.0155	2.0000e-004	4.6400e-003	2.1000e-004	4.8500e-003	1.3400e-003	2.0000e-004	1.5400e-003	0.0000	18.6804	18.6804	1.1000e-003	0.0000	18.7080
Worker	6.6800e-003	4.6300e-003	0.0467	1.4000e-004	0.0145	9.0000e-005	0.0145	3.8400e-003	9.0000e-005	3.9300e-003	0.0000	12.3273	12.3273	3.1000e-004	0.0000	12.3352
Total	9.0100e-003	0.0798	0.0622	3.4000e-004	0.0191	3.0000e-004	0.0194	5.1800e-003	2.9000e-004	5.4700e-003	0.0000	31.0077	31.0077	1.4100e-003	0.0000	31.0432

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1060	0.7977	0.7546	1.2900e-003		0.0400	0.0400		0.0387	0.0387	0.0000	106.2052	106.2052	0.0190	0.0000	106.6792
Total	0.1060	0.7977	0.7546	1.2900e-003		0.0400	0.0400		0.0387	0.0387	0.0000	106.2052	106.2052	0.0190	0.0000	106.6792

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3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3300e-003	0.0752	0.0155	2.0000e-004	4.6400e-003	2.1000e-004	4.8500e-003	1.3400e-003	2.0000e-004	1.5400e-003	0.0000	18.6804	18.6804	1.1000e-003	0.0000	18.7080
Worker	6.6800e-003	4.6300e-003	0.0467	1.4000e-004	0.0145	9.0000e-005	0.0145	3.8400e-003	9.0000e-005	3.9300e-003	0.0000	12.3273	12.3273	3.1000e-004	0.0000	12.3352
Total	9.0100e-003	0.0798	0.0622	3.4000e-004	0.0191	3.0000e-004	0.0194	5.1800e-003	2.9000e-004	5.4700e-003	0.0000	31.0077	31.0077	1.4100e-003	0.0000	31.0432

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291
Paving	2.0300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.9000e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291

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3.5 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.7000e-004	1.6700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4418	0.4418	1.0000e-005	0.0000	0.4421
Total	2.4000e-004	1.7000e-004	1.6700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4418	0.4418	1.0000e-005	0.0000	0.4421

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291
Paving	2.0300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	5.9000e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291

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3.5 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.7000e-004	1.6700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4418	0.4418	1.0000e-005	0.0000	0.4421
Total	2.4000e-004	1.7000e-004	1.6700e-003	0.0000	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4418	0.4418	1.0000e-005	0.0000	0.4421

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0611					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	0.0622	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788

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3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	8.0000e-005	7.7000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2039	0.2039	1.0000e-005	0.0000	0.2041
Total	1.1000e-004	8.0000e-005	7.7000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2039	0.2039	1.0000e-005	0.0000	0.2041

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0611					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0900e-003	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788
Total	0.0622	7.6300e-003	9.0900e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004	0.0000	1.2766	1.2766	9.0000e-005	0.0000	1.2788

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3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e-004	8.0000e-005	7.7000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2039	0.2039	1.0000e-005	0.0000	0.2041
Total	1.1000e-004	8.0000e-005	7.7000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2039	0.2039	1.0000e-005	0.0000	0.2041

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5722	3.3805	3.5846	9.7100e-003	0.4966	9.0000e-003	0.5056	0.1331	8.4500e-003	0.1416	0.0000	898.6019	898.6019	0.0926	0.0000	900.9171
Unmitigated	0.5722	3.3805	3.5846	9.7100e-003	0.4966	9.0000e-003	0.5056	0.1331	8.4500e-003	0.1416	0.0000	898.6019	898.6019	0.0926	0.0000	900.9171

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Gasoline/Service Station	2,464.32	2,464.32	2,464.32	1,321,048	1,321,048
Parking Lot	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	2,464.32	2,464.32	2,464.32	1,321,048	1,321,048

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 Hour)	9.50	7.30	7.30	0.90	80.10	19.00	24	15	61
Gasoline/Service Station	9.50	7.30	7.30	2.00	79.00	19.00	12	29	59
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.552050	0.036079	0.182449	0.124563	0.019215	0.004844	0.016098	0.055414	0.001187	0.001496	0.005121	0.000613	0.000871
Gasoline/Service Station	0.552050	0.036079	0.182449	0.124563	0.019215	0.004844	0.016098	0.055414	0.001187	0.001496	0.005121	0.000613	0.000871
Parking Lot	0.552050	0.036079	0.182449	0.124563	0.019215	0.004844	0.016098	0.055414	0.001187	0.001496	0.005121	0.000613	0.000871
Other Asphalt Surfaces	0.552050	0.036079	0.182449	0.124563	0.019215	0.004844	0.016098	0.055414	0.001187	0.001496	0.005121	0.000613	0.000871

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	20.8588	20.8588	9.4000e-004	2.0000e-004	20.9406
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	20.8588	20.8588	9.4000e-004	2.0000e-004	20.9406
NaturalGas Mitigated	5.3000e-004	4.8600e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.2897	5.2897	1.0000e-004	1.0000e-004	5.3212
NaturalGas Unmitigated	5.3000e-004	4.8600e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.2897	5.2897	1.0000e-004	1.0000e-004	5.3212

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market (24 Hour)	45442.8	2.5000e-004	2.2300e-003	1.8700e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4250	2.4250	5.0000e-005	4.0000e-005	2.4394
Gasoline/Service Station	53683.2	2.9000e-004	2.6300e-003	2.2100e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8647	2.8647	5.0000e-005	5.0000e-005	2.8818
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		5.4000e-004	4.8600e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.2897	5.2897	1.0000e-004	9.0000e-005	5.3212

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market (24 Hour)	45442.8	2.5000e-004	2.2300e-003	1.8700e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4250	2.4250	5.0000e-005	4.0000e-005	2.4394
Gasoline/Service Station	53683.2	2.9000e-004	2.6300e-003	2.2100e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8647	2.8647	5.0000e-005	5.0000e-005	2.8818
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		5.4000e-004	4.8600e-003	4.0800e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.2897	5.2897	1.0000e-004	9.0000e-005	5.3212

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 Hour)	45792.4	13.3215	6.0000e-004	1.2000e-004	13.3737
Gasoline/Service Station	24336	7.0796	3.2000e-004	7.0000e-005	7.1074
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	1573.25	0.4577	2.0000e-005	0.0000	0.4595
Total		20.8588	9.4000e-004	1.9000e-004	20.9406

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 Hour)	45792.4	13.3215	6.0000e-004	1.2000e-004	13.3737
Gasoline/Service Station	24336	7.0796	3.2000e-004	7.0000e-005	7.1074
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	1573.25	0.4577	2.0000e-005	0.0000	0.4595
Total		20.8588	9.4000e-004	1.9000e-004	20.9406

6.0 Area Detail

6.1 Mitigation Measures Area

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0370	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Unmitigated	0.0370	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.1100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0308					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Total	0.0370	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	6.1100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0308					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003
Total	0.0370	1.0000e-005	7.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4900e-003	1.4900e-003	0.0000	0.0000	1.5900e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Edgewood Commercial - San Joaquin County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.1239	0.0146	3.5000e-004	1.5941
Unmitigated	1.1239	0.0146	3.5000e-004	1.5941

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 Hour)	0.287401 / 0.176149	0.7229	9.3900e-003	2.3000e-004	1.0254
Gasoline/Service Station	0.159383 / 0.0976861	0.4009	5.2100e-003	1.3000e-004	0.5687
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.1239	0.0146	3.6000e-004	1.5941

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 Hour)	0.287401 / 0.176149	0.7229	9.3900e-003	2.3000e-004	1.0254
Gasoline/Service Station	0.159383 / 0.0976861	0.4009	5.2100e-003	1.3000e-004	0.5687
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.1239	0.0146	3.6000e-004	1.5941

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.6802	0.2175	0.0000	9.1176
Unmitigated	3.6802	0.2175	0.0000	9.1176

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	11.66	2.3669	0.1399	0.0000	5.8638
Gasoline/Service Station	6.47	1.3134	0.0776	0.0000	3.2538
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		3.6802	0.2175	0.0000	9.1176

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	11.66	2.3669	0.1399	0.0000	5.8638
Gasoline/Service Station	6.47	1.3134	0.0776	0.0000	3.2538
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		3.6802	0.2175	0.0000	9.1176

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

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Equipment Type	Number
----------------	--------

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-7.5310	0.0000	0.0000	-7.5310

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	2.49 / 0.74268	-7.5310	0.0000	0.0000	-7.5310
Total		-7.5310	0.0000	0.0000	-7.5310

Operational On-road Mobile Energy Usage

Unmitigated:

Step 1:

Therefore:

Average Daily VMT:

3,619 Source: Fehr & Peers TIA

Note: If average daily VMT has not been previously calculated, calculate daily VMT from information provided by the CalEEMod Output

Step 2:

Given:

Fleet Mix (CalEEMod Output)

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	Check
55.2050%	3.6079%	18.2449%	12.4563%	1.9215%	0.4844%	1.6098%	5.5414%	0.1187%	0.1496%	0.5121%	0.0613%	0.0871%	100.0%

And:

Gasoline MPG Factors for each Vehicle Class -Year 2040 (EMFAC2017 Output)

LDA	LDT1	LDT2	MDV	MCY	MH
29.80735	25.51902	23.2693	18.74751	37.05947	4.658488

Diesel MPG Factors for each Vehicle Class -Year 2040 (EMFAC2017 Output)

LHD1	LHD2	MHD	HHD	OBUS	UBUS	SBUS
17.49953	15.64479	8.473153	7.022539	6.150261062	7.024284	7.876596

Therefore:

Weighted Average MPG Factors

Gasoline: 26.8 Diesel: 9.5

Step 3:

Therefore:

122 daily gallons of gasoline 38 daily gallons of diesel

or

44,419 annual gallons of gasoline 13,701 annual gallons of diesel

Construction Off-Site (i.e. Construction Off-road Mobile) Energy Usage

Note: For the sake of simplicity, and as a conservative estimation, it was assumed that all off-road vehicles use diesel fuel as an energy source. Demolition, Site preparation and grading off-road mobile vehicle on-site gallons of fuel are calculated below.

Given Factor:	0.2 metric tons	CO2	(note: this is a sum of the values in the green cells below)
Conversion Factor:	2204.6262 pounds	per metric ton	
Intermediate Result:	374 pounds	CO2	
Conversion Factor:	22.38 pounds	CO2 per 1 gallon of diesel fuel	Source: U.S. EIA, 2016
Final Result:	16.70 gallons	diesel fuel	http://www.eia.gov/tools/faqs/faq.cfm?id=307&t=11

Mitigated Onsite Scenario	Total CO2 (MT/yr) (provided in CalEEMod Output File)
Demolition	0
Site Preparation	0.0565
Grading	0.113

On-road Mobile (Construction) Energy Usage - Site Preparation

Worker Trips

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

8

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

86

Step 2: Given:

Assumed Fleet Mix for Workers

LDA	LDT1	LDT2
0.5	0.25	0.25

Note: Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2040

LDA	LDT1	LDT2
29.807347	25.519015	23.2693

Therefore:

Weighted Average Worker MPG Factor

27.1

Step 3: **Therefore:**

3.2 Worker daily gallons of gasoline

Step 4: **10 # of Days (CalEEMod Output)**

Therefore:

Result: 32 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Grading

Worker Trips

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

8

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

86

Step 2: Given:

Assumed Fleet Mix for Workers

LDA	LDT1	LDT2
0.5	0.25	0.25

Note: Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2040

LDA	LDT1	LDT2
29.807347	25.519015	23.2693

Therefore:

Weighted Average Worker MPG Factor

27.1

Step 3: **Therefore:**

3.2 Worker daily gallons of gasoline

Step 4: **4 # of Days (CalEEMod Output)**

Therefore:

Result: 13 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Building Construction

Worker Trips

Step 1: **Total Daily Worker Trips (CalEEMod Output)**
31

Worker Trip Length (miles) (CalEEMod Output)
10.8

Therefore:
Average Worker Daily VMT:
335

Step 2: Given:
Assumed Fleet Mix for Workers
LDA LDT1 LDT2
0.5 0.25 0.25

Note: Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2040

LDA	LDT1	LDT2
29.807347	25.519015	23.2693

Therefore:
Weighted Average Worker MPG Factor
27.1

Step 3: **Therefore:**
12.4 Worker daily gallons of gasoline

Step 4: 200 # of Days (CalEEMod Output)

Therefore:
Result: 2,471 Total gallons of gasoline

Vendor Trips

Step 1: **Total Vendor Trips (CalEEMod Output)**
12

Vendor Trip Length (miles) (CalEEMod Output)
7.3

Average Vendor Daily VMT:
88

Step 2: **Fleet Mix for Vendors (CalEEMod Output)**
MHD HHD
0% 100%

Diesel MPG Factors for each Vehicle Class - Year 2040 (EMFAC2017 output)

MHD	HHD
8.473153	7.022539

Therefore:
Weighted Average Vendor (Diesel) MPG Factor
7.022539

Step 3: **Therefore:**
12.5 Vendor daily gallons of gasoline (all workers)

Step 4: 200 # of Days (CalEEMod output)

Therefore:
Result: 2494.824 Vendor daily gallons of diesel

On-road Mobile (Construction) Energy Usage - Paving

Worker Trips

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

13

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

140

Step 2: Given:

Assumed Fleet Mix for Workers

LDA	LDT1	LDT2
0.5	0.25	0.25

Note: Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2040

LDA	LDT1	LDT2
29.807347	25.519015	23.2693

Therefore:

Weighted Average Worker MPG Factor

27.1

Step 3: **Therefore:**

5.2 Worker daily gallons of gasoline

Step 4: **10 # of Days (CalEEMod Output)**

Therefore:

Result: 52 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Architectural Coatings

Worker Trips

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

6

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

65

Step 2: **Given:**

Assumed Fleet Mix for Workers

LDA	LDT1	LDT2
0.5	0.25	0.25

Note: Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2040

LDA	LDT1	LDT2
29.807347	25.519015	23.2693

Therefore:

Weighted Average Worker MPG Factor

27.1

Step 3: **Therefore:**

2.4 Worker daily gallons of gasoline

Step 4: **10 # of Days (CalEEMod Output)**

Therefore:

Result: 24 Total gallons of gasoline

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: SAN JOAQUIN

Calendar Year: 2020

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, and 1000 gallons/day for Fuel Consumption

Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Fuel Consu	MPG	
All Other Buses	Aggregated	Aggregated	DSL	68.27309	3636.851	0.425804	8.541133	
LDA	Aggregated	Aggregated	GAS	277067.7	11061532	371.1008	29.80735	
LDA	Aggregated	Aggregated	DSL	2004.564	85052.65	1.785902	47.62447	
LDA	Aggregated	Aggregated	ELEC	2936.101	113174.9	0	#DIV/0!	
LDT1	Aggregated	Aggregated	GAS	28521.1	1002742	39.2939	25.51902	
LDT1	Aggregated	Aggregated	DSL	27.12201	487.9541	0.02113	23.09347	
LDT1	Aggregated	Aggregated	ELEC	53.81137	2101.723	0	#DIV/0!	
LDT2	Aggregated	Aggregated	GAS	91178.19	3395833	145.9362	23.2693	
LDT2	Aggregated	Aggregated	DSL	372.8711	17314.18	0.49259	35.14926	
LDT2	Aggregated	Aggregated	ELEC	401.3829	13203.63	0	#DIV/0!	
LHD1	Aggregated	Aggregated	GAS	8163.726	263018.5	32.02678	8.212453	
LHD1	Aggregated	Aggregated	DSL	8791.841	298190.4	17.03992	17.49953	
LHD2	Aggregated	Aggregated	GAS	1071.981	35504.23	4.936676	7.191931	
LHD2	Aggregated	Aggregated	DSL	2672.325	94827.8	6.061302	15.64479	
MCY	Aggregated	Aggregated	GAS	13516.66	102279.1	2.759864	37.05947	
MDV	Aggregated	Aggregated	GAS	91994.93	3034688	161.8716	18.74751	
MDV	Aggregated	Aggregated	DSL	1490.811	62985.23	2.447374	25.73584	
MDV	Aggregated	Aggregated	ELEC	124.8275	4250.512	0	#DIV/0!	
MH	Aggregated	Aggregated	GAS	1742.518	14160.09	3.039632	4.658488	
MH	Aggregated	Aggregated	DSL	640.3479	5509.625	0.575463	9.574253	
Motor Coach	Aggregated	Aggregated	DSL	20.24702	2585.522	0.420392	6.150261	
OBUS	Aggregated	Aggregated	GAS	198.4627	9602.849	2.078387	4.620337	
PTO	Aggregated	Aggregated	DSL	0	11517.97	2.415621	4.768119	
SBUS	Aggregated	Aggregated	GAS	36.87251	1911.928	0.206875	9.241968	
SBUS	Aggregated	Aggregated	DSL	614.1395	19482.48	2.473464	7.876596	MHD
T6 Ag	Aggregated	Aggregated	DSL	91.6981	1211.286	0.134609	8.998573	8.473153
T6 CAIRP heavy	Aggregated	Aggregated	DSL	100.0952	19867.45	1.841406	10.78928	
T6 CAIRP small	Aggregated	Aggregated	DSL	52.95828	2799.069	0.274825	10.18492	
T6 instate constru	Aggregated	Aggregated	DSL	278.7596	18952.35	2.3922	7.922562	
T6 instate constru	Aggregated	Aggregated	DSL	1479.416	75523.92	9.482281	7.964741	
T6 instate heavy	Aggregated	Aggregated	DSL	1413.691	168417.3	18.20296	9.25219	
T6 instate small	Aggregated	Aggregated	DSL	2790.983	131152.6	14.49043	9.050979	
T6 OOS heavy	Aggregated	Aggregated	DSL	57.22116	11403.09	1.056294	10.79537	
T6 OOS small	Aggregated	Aggregated	DSL	30.56648	1601.505	0.15744	10.17214	
T6 Public	Aggregated	Aggregated	DSL	462.4672	7325.387	1.000911	7.318722	
T6 utility	Aggregated	Aggregated	DSL	75.954	1267.707	0.146648	8.644551	HHD
T6TS	Aggregated	Aggregated	GAS	558.8793	28341.59	6.037127	4.694549	7.022539
T7 Ag	Aggregated	Aggregated	DSL	61.21004	947.3686	0.164531	5.758008	

T7 CAIRP	Aggregated	Aggregated	DSL	1428.292	258565.4	39.3317	6.573969
T7 CAIRP construct	Aggregated	Aggregated	DSL	74.01637	13613.64	2.407314	5.655116
T7 NNOOS	Aggregated	Aggregated	DSL	1561.686	315212.5	46.57571	6.767743
T7 NOOS	Aggregated	Aggregated	DSL	561.4219	101586.2	15.81124	6.424936
T7 other port	Aggregated	Aggregated	DSL	28.87698	4629.534	0.860699	5.378805
T7 POAK	Aggregated	Aggregated	DSL	154.3306	17241.45	3.341096	5.160417
T7 POLA	Aggregated	Aggregated	DSL	137.2077	16743.34	3.259465	5.136836
T7 Public	Aggregated	Aggregated	DSL	466.6019	9440.688	1.812773	5.207871
T7 Single	Aggregated	Aggregated	DSL	827.2317	58006.78	9.692168	5.984913
T7 single construct	Aggregated	Aggregated	DSL	478.8561	33772.93	6.459487	5.228423
T7 SWCV	Aggregated	Aggregated	DSL	225.1146	9183.102	3.755251	2.445403
T7 SWCV	Aggregated	Aggregated	NG	34.14352	1392.481	0.609549	2.284443
T7 tractor	Aggregated	Aggregated	DSL	2690.443	372506.3	52.8112	7.053547
T7 tractor construct	Aggregated	Aggregated	DSL	396.4359	27859.69	5.352613	5.204877
T7 utility	Aggregated	Aggregated	DSL	19.70685	399.9391	0.071283	5.610595
T7IS	Aggregated	Aggregated	GAS	2.144651	192.9281	0.048031	4.016742
UBUS	Aggregated	Aggregated	GAS	15.62049	1422.148	0.318164	4.469863
UBUS	Aggregated	Aggregated	DSL	97.94376	7666.863	1.09148	7.024284
UBUS	Aggregated	Aggregated	ELEC	2.042727	124.3182	0	#DIV/0!
UBUS	Aggregated	Aggregated	NG	69.82714	3997.974	0.852161	4.691573

Name Prioritization Calculator

Applicability

Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in gray areas.

Author or updater

Matthew Cegielski

Last Update

March 17, 2020

Facility:
ID#:
Project #:
Unit and Process#

1-0 p1

Operating Hours hr/yr

8,760.00

Receptor Proximity and Proximity Factors

**Cancer
Score**

**Chronic
Score**

**Acute
Score**

Max Score

0 < R < 100 1.000

2.16E+00

5.51E-02

2.45E-01

2.16E+00

100 ≤ R < 250 0.250

5.39E-01

1.38E-02

6.12E-02

5.39E-01

250 ≤ R < 500 0.040

8.62E-02

2.20E-03

9.79E-03

8.62E-02

500 ≤ R < 1000 0.011

2.37E-02

6.06E-04

2.69E-03

2.37E-02

1000 ≤ R < 1500 0.003

6.47E-03

1.65E-04

7.35E-04

6.47E-03

1500 ≤ R < 2000 0.002

4.31E-03

1.10E-04

4.90E-04

4.31E-03

2000 < R 0.001

2.16E-03

5.51E-05

2.45E-04

2.16E-03

Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.

1-0 p1

Enter the unit's CAS# of the substances emitted and their amounts.

Prioritization score for each substance generated below. Totals on last row.

Substance

CAS#

**Annual
Emissions
(lbs/yr)**

**Maximum
Hourly
(lbs/hr)**

**Average
Hourly
(lbs/hr)**

Cancer

Chronic

Acute

Benzene

71432

9.65

4.41E-03

1.10E-03

2.16E+00

5.51E-02

2.45E-01

0.00E+00

Totals

2.16E+00

5.51E-02

2.45E-01

Toxic Air Contaminant (TAC) Emission Rates

Passenger Vehicle - Gasoline Dispenser

Refueling Vehicle fueling loss (95%) (Passenger Vehicle)

1,580,000 typical gallons of gasoline pumped per year at a gasoline station
(Source: Retail Fuel Report and Data for California (CEC) for 2012)

emission factor: 0.00126 Benzene Emission Factor (lb/1,000 gal) (source: Senior Air Quality Specialist David Garner, SJVAPCD).
1,991 thousand lbs of benzene vapor/year

Annual result: 1.991 lbs of Benzene/year (total)

Spillage (Passenger Vehicle)

emission factor: 0.0042 Benzene Emission Factor (lb/1,000 gal) (source: Senior Air Quality Specialist David Garner, SJVAPCD).
6,636 thousand lbs of benzene vapor/year

Annual result: 6.636 lbs of Benzene/year (total)

Toxic Air Contaminant (TAC) Emission Rates

Gasoline Station Tank

Breathing loss (U/G tank)

1,580,000 typical gallons of gasoline pumped per year at a gasoline station
(Source: Retail Fuel Report and Data for California (CEC) for 2012)

emission factor: 0.000075 lbs benzene/thousand gallons of gasoline (source: Senior Air Quality Specialist David Garner, SJVAPCD).
119 thousand lbs of gasoline vapor/year

Annual result: 0.119 lbs of benzene vapor/year (total)

U/G Tank filling (Loading) loss (98%)

3,600,000 gallons of gasoline pumped per year (average)

emission factor: 0.000252 lbs benzene/thousand gallons of gasoline (source: Senior Air Quality Specialist David Garner, SJVAPCD).
907 thousand lbs of benzene vapor/year

Annual result: 0.907 lbs of benzene vapor/year (total)

Sum

	Annual Total (lbs)	Max Hour Total (lbs) (note: assumes 4x average hourly rate)
Refueling	1.9908	0.000909041
Spillage	6.636	0.003030137
Tank Filling	0.9072	0.000414247
Tank Breathing	0.1185	5.41096E-05
Total	9.6525	0.004407534

APPENDIX B



TECHNICAL MEMORANDUM

Date: January 28, 2020

To: Al Gali, City of Tracy

From: Jim Nelson

Subject: **Edgewood Commercial Site
Preliminary Storm Drainage Evaluations and
Recommendations**

SWC File: 2014-96

Storm Water Consulting, Inc. (SWC) has prepared this Technical Memorandum to summarize our preliminary storm drainage evaluations, findings and recommendations relating to the proposed development of a 10.29 acre commercial site (hereinafter "Project") located at the southeast corner of Corral Hollow Road and Middlefield Drive within the existing Edgewood development. The primary items that are addressed herein include the following:

1. Downstream capacity for the storm drain system residing within the Edgewood development that is proposed to be utilized for discharge of site runoff from the Project.
2. Comments regarding the preliminary Site Plan and Grading & Utility Plan submitted for the Project by the applicant.
3. Preliminary storm water quality recommendations for the Project.

As a part of preparing this Technical Memorandum, we have reviewed and considered the following information:

- City of Tracy Citywide Storm Drainage Master Plan (SDMP) and Appendices, Stantec Consulting Services Inc. (Stantec), 2013.

- Plan “C” Storm Drainage Analysis Update, Final Report, Stantec, 2000.
- City of Tracy Water, Sewer, and Storm Drain Systems Maps, Pacific Data Services, 2002.
- Site Plan and Grading & Utility Plan for Edgewood Commercial Development, Schack & Company, August 2019.
- Improvement Plans, Edgewood-Unit No. 6, Record Drawings, Thompson-Hysell Engineers, 2001.
- GIS Storm Drain Data, City of Tracy, December 2019.
- Field Survey Data, Schack & Company, December 2019.
- Multi-Agency Post-Construction Stormwater Standards Manual (Stormwater Standards Manual), 2015.
- City of Tracy Design Standards.
- Aerial Photography and Google Earth Data.

Downstream Capacity Analysis

The Project site is a part of the existing Edgewood development area (totaling about 300 acres). The Edgewood development area includes Sub-basins W14, W15, and W21 per the Citywide SDMP and drains directly to the upstream origin (headwater) of the City’s existing Westside Channel.

The capacity analysis performed herein has evaluated an existing storm drain route extending between the Project and the headwater of the City’s Westside Channel within the Edgewood development. This existing storm drain route extends east from the Project in Middlefield Drive to Whispering Wind Drive (24” SD), east in Whispering Wind Drive from Middlefield Drive to English Oaks Avenue (24” SD), north in English Oaks Avenue to Cherry Blossom Lane (24” SD), east in Cherry Blossom Lane for 54 feet (36” SD), and north in an easement 74 feet (36” SD) to its outlet discharging to the headwater of the City’s Westside Channel. An 18” SD stub has previously been provided to the northeast corner of the Project site from the 24” SD in Middlefield Drive in anticipation of future development of the Project site. The downstream storm drain route is depicted on Exhibit A and has been analyzed for the 10-year return period storm event in conformance with City of Tracy Design Standards.

Local Sub-Basins contributing to the downstream storm drain system analyzed herein are depicted on Exhibit A and consist of existing residential land uses within the Edgewood development, street frontage along Corral Hollow Road and Tracy Blvd., the Brookview West residential development, and the Project site. Hydrologic analysis was performed to determine 10-year return period discharges along the storm drain system route using the Rational Method and the results are shown on Exhibit B. An HGL analysis was performed for the system using the crown of the existing 36" SD outlet discharging to the headwater of the Westside Channel as the assumed starting elevation. The HGL analysis is provided on Exhibit C. The conditions represented on Exhibits B and C are based on the assumption that all local Sub-Basins, including the Project (Sub-Basin EC), would contribute to the storm drain system. The HGL analysis (Exhibit C) has identified that under the above assumptions **there will be a capacity deficiency along the existing 24" SD segment in English Oaks Avenue between Whispering Wind Drive and Cherry Blossom Drive.** This capacity deficiency will produce surcharging from the storm drains into the streets in English Oaks Avenue and upstream during the design storm.

A second analysis was performed under the assumption that the Project (Sub-Basin EC) will not contribute any runoff to the downstream system analyzed. There is still a significant amount of head loss occurring in the 24" SD in English Oaks Avenue under this assumption, but the surcharge condition has essentially been eliminated during the design storm. Results of the second analysis are depicted on Attachments A1 (hydrologic analysis) and A2 (HGL analysis).

A third analysis was also performed under the assumptions that all local Sub-Basins will contribute to the storm drain system (including Sub-Basin EC) and that the existing 24" SD in English Oaks Avenue would be removed and replaced with a 30" SD between Whispering Winds Drive and Cherry Blossom Drive. Results of the third analysis are depicted on Attachment 2 (HGL analysis) and indicate that this condition would reduce the head loss along English Oaks Avenue and eliminate the surcharge condition during the design storm.

Based on the results of the capacity analyses performed under the above scenarios, SWC offers the following alternative recommendations regarding storm drainage produced by development of the Project:

Alternative #1: Replace the existing 24" SD in English Oaks Avenue (Whispering Winds Drive to Cherry Blossom Lane) with a 30" SD, and discharge runoff from the Project site directly to the 18" SD stub provided at the northeast corner of the Project site.

Alternative #2: Provide detention/retention storage within the Project site at storage volumes that conform to the requirements for Temporary Retention Basins, Single Parcel, Section 5.06, in the City of Tracy Design Standards (runoff volume from a single 10-year 48-hour storm). The detention/retention storage facility(s) could be drained to the 18" SD stub after storm events when the downstream system is empty, and regulated by a hand operated or automated sluice gate installed at an appropriate onsite location. Requirements for discharge authorizations would need to be established by the City. Geotechnical testing shall also be performed to determine the infiltration capacity of the underlying soils. If Alternative #2 is selected, the Project site detention/retention facility may be decommissioned in the future if the capacity constraint in the downstream system (English Oaks Avenue) is eliminated.

Site Plan and Grading & Utility Plan

The plans appear to be preliminary at present. As additional detail is included in subsequent submittals, the following additional information should be provided with respect to storm drainage facilities:

- Existing topography for the overall site.
- Proposed grades for site improvements and invert elevations and slopes for proposed onsite storm drains.
- Invert elevation for the existing 24" SD in Middlefield Drive at the existing 18" SD stub connection from the site, and invert elevation for the existing 18" SD stub at the point of connection serving onsite storm drains.

- Show detention/retention facility, required storage volume, provided storage volume, maximum water surface elevation, and provisions for drainage outflow, if applicable.

Preliminary Storm Water Quality Recommendations

Storm water quality treatment control measures and hydromodification conforming to the City's Stormwater Standards Manual will be required with the development of this project. Using an assumed impervious ratio of 0.80 for a typical commercial land use, we have estimated that the storm water quality design volume (SDV) required for storm water quality treatment is roughly 14,500 cubic feet (see Exhibit D). This value will need to be refined during the design process based on more detailed site information. Onsite bioretention measures (or measures as effective at storm water quality treatment as bioretention) will need to be provided to achieve the SDV, and the sub-drains and overflow devices serving the bioretention areas should be connected to the outfall SD(s) that will serve the site development. The incorporation of bioretention facilities into the project development in conformance with the Stormwater Standards Manual will mitigate the impact of the site development on downstream stormwater quality. Site design measures described in the Stormwater Standards Manual may be utilized to reduce the SDV requirement for the bioretention facilities in conformance with the Stormwater Standards Manual.

Exhibits

Exhibit A – Existing Storm Drain System Extending from Edgewood Commercial Site to Westside Channel; including Local Drainage Sheds and Storm Drain Nodes Incorporated into HGL Analysis

Exhibit B – Derivation of Discharges along Storm Drain Segments

Exhibit C – Hydraulic Grade Line Calculations for Downstream Storm Drain System, with Project Site Drainage Included

Exhibit D – Preliminary Storm Water Quality Design Volume (SDV)

Attachments 1A and 1B – Discharges and Hydraulic Grade Line Calculations for Downstream Storm Drain System, with Project Site Not Included

Edgewood Commercial Site
Preliminary Storm Drainage Evaluations and Recommendations
To: Al Gali, City of Tracy
January 28, 2020
Page 6

Attachment 2 – Hydraulic Grade Line Calculations for Downstream Storm Drain System, with Project Site Drainage Included Plus Replacement of Existing 24” SD (English Oaks Avenue) with a 36” SD

Cc: Colleen Volken, City of Tracy
Kat Balogh, City of Tracy
Nanda Gottiparthi, SNG Associates



James H. Nelson



0' 175' 350'
 SCALE 1" = 350'
 IF BAR DOES NOT MEASURE 1"
 THEN DRAWING IS NOT TO SCALE

0' 100' 200'
 SCALE 1" = 200'
 IF BAR DOES NOT MEASURE 1"
 THEN DRAWING IS NOT TO SCALE

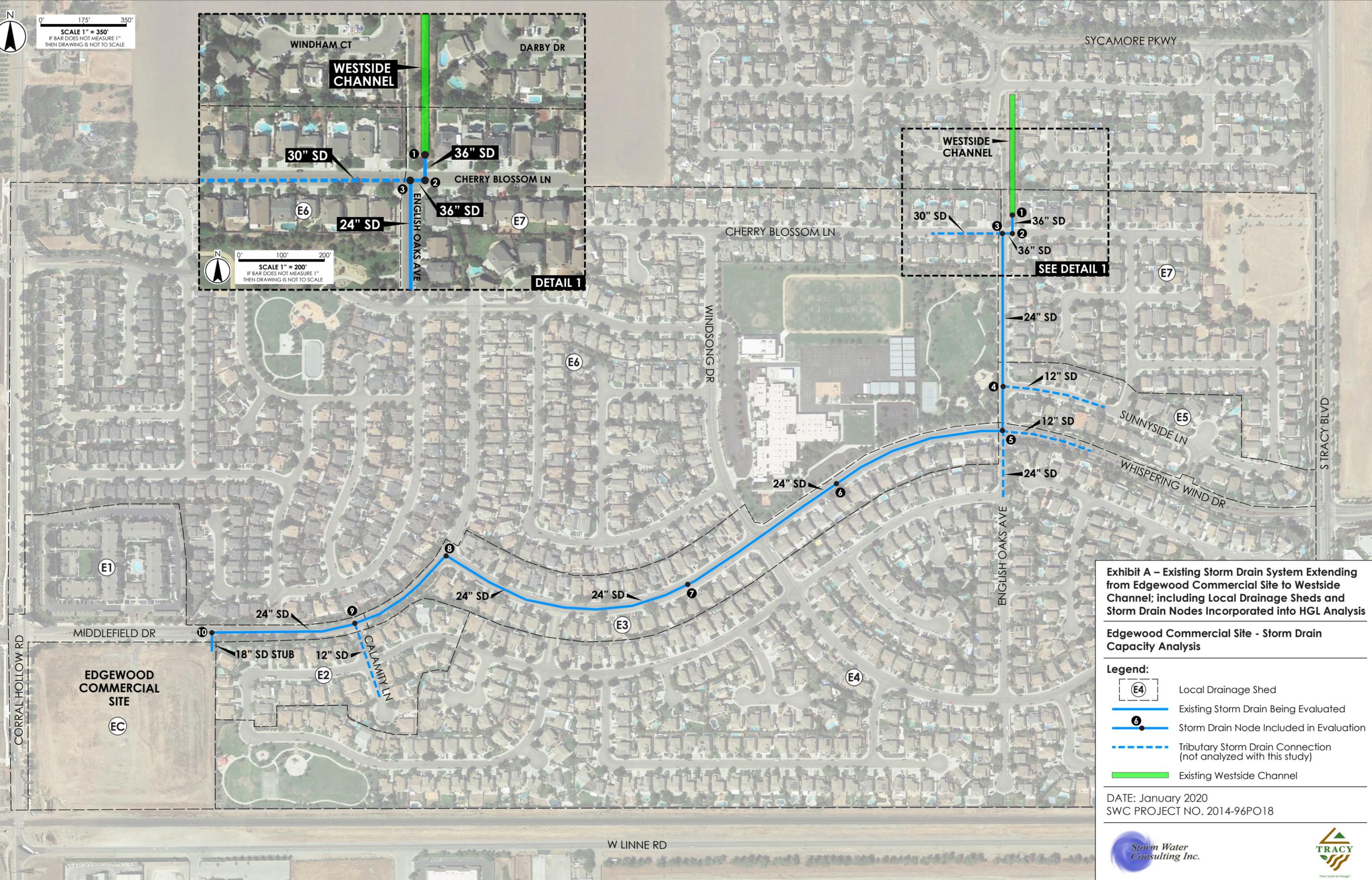


Exhibit A - Existing Storm Drain System Extending from Edgewood Commercial Site to Westside Channel; including Local Drainage Sheds and Storm Drain Nodes Incorporated into HGL Analysis

Edgewood Commercial Site - Storm Drain Capacity Analysis

- Legend:**
- E4 Local Drainage Shed
 - Existing Storm Drain Being Evaluated
 - Storm Drain Node Included in Evaluation
 - - - Tributary Storm Drain Connection (not analyzed with this study)
 - Existing Westside Channel

DATE: January 2020
 SWC PROJECT NO. 2014-96PO18



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EXHIBIT B - DERIVATION OF DISCHARGES ALONG STORM DRAIN SEGMENTS									
EDGEWOOD COMMERCIAL SITE - DOWNSTREAM SD CAPACITY ANALYSIS (Drainage from Edgewood Commercial Site INCLUDED)									
Location	Local Sub-Basins	Drainage Area (dA, acres)	Runoff Coeff. (C)	Sum dAC	Travel Length (ft)	Assumed Travel Velocity (fps)	Time of Concentration (Tc,min)	10-Year Intensity (i, in./hr.)	Discharge (Q, CiA, cfs)
36" SD (Cherry Blossom Ln. to Westside Channel)	All	300.3	0.37	110.77	74	6	41.87	0.38	42.1
36" SD (English Oaks Ave. to 54' East)	EC, E1, E2, E3, E4, E5, E6	275.3	0.37	102.02	5200	4	41.67	0.38	38.8
24" SD (Sunnyside Ln. to Cherry Blossom Ln.)	EC, E1, E2, E3, E4, E5	146.3	0.39	56.87	615	10	36.88	0.57	32.4
24" SD (Whispering Wind Dr. to Sunnyside Ln.)	EC, E1, E2, E3, E4	138.3	0.39	54.07	170	10	35.85	0.58	31.4
24" SD (Middlefield Dr. to English Oaks Ave.)	EC, E1, E2, E3	42.3	0.48	20.47	2490	4	35.57	0.58	11.9
24" SD (Calamity Ln. to Whispering Wind Dr.)	EC, E1, E2	28.3	0.55	15.57	473	4	25.19	0.72	11.2
24" SD (Edgewood Comm. Site to Calamity Ln.)	EC, E1	20.3	0.63	12.77	580	3	23.22	0.75	9.6
18" SD Stub Serving Edgewood Commercial Site	EC	10.3	0.90	9.27	N/A	N/A	10.00	1.20	11.1
<u>Local Sub-Basin Areas</u>									
EC = 10.3 acres; E1 = 10 acres; E2 = 8 acres; E3 = 14 acres; E4 = 96 acres; E5 = 8 acres; E6 = 129 acres; E7 = 25 acres									
<u>Runoff Coefficients</u>									
C = 0.9 (Commercial); Sub-basin EC									
C = 0.35 (Low Density Single Family Residential); All Other Sub-basins									
Version Date: January 28, 2020									
									

City of Tracy - Analysis of Existing Storm Drain System Proposed to Serve Edgewood Commercial Site in Edgewood Estates
 Hydraulic Grade Line Calculations - 10-Year Storm Analysis Using Crown of 36" SD That Discharges to the Headwater of the Westside Channel as the Starting WSE



NOTE: Runoff from Edgewood Commercial Site INCLUDED

Tailwater= 115.1 ft

Crown of 36" SD @ Westside Channel

Note: Input Elevations are based on existing plans, City GIS data, and field survey and have been adjusted by +2.421 feet to convert to NAVD 88 Datum

Node	Invert (ft)	Dia (in)	n	Length (ft)	Pipe Slope ft/ft	Flow (cfs)	Area (ft ²)	Wetted P (ft)	Hyd. Rad. (ft)	R ^{2/3} (ft) ^{0.67}	Velocity (ft/s)	S _f (ft)	H _f (ft)	K _{minor}	H _{minor} (ft)	H _{total} (ft)	HGL (ft)	Elev. Above (ft)	Freeboard (ft)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
36" SD Outfall to Westside Channel - East of English Oaks Avenue																			
1	112.14	36	0.013	74	0.1472	42.1	7.07	9.42	0.75	0.83	5.96	0.0040	0.29				115.14	118.0	2.9
																			Top of Bank
Cherry Blossom Lane - 54 Feet East of English Oaks Avenue																			
2	123.03	36	0.013	54	0.0031	38.8	7.07	9.42	0.75	0.83	5.49	0.0034	0.18	0.80	0.441	0.735	126.03	129.55	3.5
																			Rim
Cherry Blossom Lane at English Oaks Avenue																			
3	123.20	24	0.013	615	0.0080	32.4	3.14	6.28	0.50	0.63	10.31	0.0205	12.62	1.10	0.515	0.697	126.73	129.82	3.1
																			Rim
English Oaks Avenue at Sunnyside Lane																			
4	128.15	24	0.013	170	0.0061	31.4	3.14	6.28	0.50	0.63	9.99	0.0193	3.28	0.05	0.083	12.698	139.42	137.12	-2.3
																			Rim
Whispering Wind Drive																			
5	129.18	24	0.013	698	0.0017	11.9	3.14	6.28	0.50	0.63	3.79	0.0028	1.93	0.85	1.319	4.594	144.02	138.62	-5.4
																			Rim
6	130.39	24	0.013	744	0.0031	11.9	3.14	6.28	0.50	0.63	3.79	0.0028	2.06	0.10	0.022	1.954	145.97	139.42	-6.6
																			Rim
7	132.69	24	0.013	1079	0.0031	11.9	3.14	6.28	0.50	0.63	3.79	0.0028	2.99	0.15	0.033	2.092	148.06	142.42	-5.6
																			TC
Middlefield Drive at Whispering Wind Drive																			
8	136.02	24	0.013	522	0.0069	11.2	3.14	6.28	0.50	0.63	3.57	0.0025	1.28	0.80	0.178	3.164	151.23	143.40	-7.8
																			TC
Middlefield Drive at Calamity Lane																			
9	139.61	24	0.013	547	0.0026	11.1	3.14	6.28	0.50	0.63	3.53	0.0024	1.32	0.10	0.020	1.299	152.53	149.92	-2.6
																			TC
Edgewood Commercial - At 18" Stub to 24" SD Middlefield Drive																			
10	141.02													0.00	0.000	1.317	153.84	154.56	0.7
																			TC

Note: Negative (-) Values In Freeboard Column Indicate Surcharging will Occur. Surcharge Depths Listed Are Overstated as Flow Will Spill Into Streets.



**Edgewood Commercial Site
Preliminary Storm Water Quality Design Volume (SDV) Calculation**

Assumed DMA Imperviousness Ratio (i) = 80% = 0.80 (for Commercial development)

$$C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04 = 0.5993$$

$$P_0 = (a \times C) \times P_6 = (1.963 \times 0.5993)(0.33) = 0.3882$$

$$\text{Site Area (A)} = 10.29 \text{ acres} = 448,232 \text{ SF}$$

$$\text{SDV} = A \times P_0/12 = 448,232 \times (0.3882/12) = \mathbf{14,500 \text{ cubic feet}}$$

Date: January 28, 2020

EXHIBIT D

ATTACHMENT 1A - DERIVATION OF DISCHARGES ALONG STORM DRAIN SEGMENTS									
EDGEWOOD COMMERCIAL SITE - DOWNSTREAM SD CAPACITY ANALYSIS (Drainage from Edgewood Commercial Site NOT INCLUDED)									
Location	Local Sub-Basins	Drainage Area (dA, acres)	Runoff Coeff. (C)	Sum dAC	Travel Length (ft)	Assumed Travel Velocity (fps)	Time of Concentration (Tc,min)	10-Year Intensity (i, in./hr.)	Discharge (Q, CiA, cfs)
36" SD (Cherry Blossom Ln. to Westside Channel)	All Except EC	290	0.35	101.50	74	6	41.87	0.38	38.6
36" SD (English Oaks Ave. to 54' East)	E1, E2, E3, E4, E5, E6	265	0.35	92.75	5200	4	41.67	0.38	35.2
24" SD (Sunnyside Ln. to Cherry Blossom Ln.)	E1, E2, E3, E4, E5	136	0.35	47.60	615	10	36.88	0.57	27.1
24" SD (Whispering Wind Dr. to Sunnyside Ln.)	E1, E2, E3, E4	128	0.35	44.80	170	10	35.85	0.58	26.0
24" SD (Middlefield Dr. to English Oaks Ave.)	E1, E2, E3	32	0.35	11.20	2490	4	35.57	0.58	6.5
24" SD (Calamity Ln. to Whispering Wind Dr.)	E1, E2	18	0.35	6.30	473	4	25.19	0.72	4.5
24" SD (Edgewood Comm. Site to Calamity Ln.)	E1	10	0.35	3.50	580	3	23.22	0.75	2.6
18" SD Stub Serving Edgewood Commercial Site	EC	Not Included	0.90	N/A	N/A	N/A	N/A	N/A	0.0
<u>Local Sub-Basin Areas</u>									
EC = 10.3 acres; E1 = 10 acres; E2 = 8 acres; E3 = 14 acres; E4 = 96 acres; E5 = 8 acres; E6 = 129 acres; E7 = 25 acres									
<u>Runoff Coefficients</u>									
C = 0.9 (Commercial); Sub-basin EC									
C = 0.35 (Low Density Single Family Residential); All Other Sub-basins									
Version Date: January 28, 2020									
									

City of Tracy - Analysis of Existing Storm Drain System Proposed to Serve Edgewood Commercial Site in Edgewood Estates
 Hydraulic Grade Line Calculations - 10-Year Storm Analysis Using Crown of 36" SD That Discharges to the Headwater of the Westside Channel as the Starting WSE



Note: Runoff from Edgewood Commercial Site NOT INCLUDED

Tailwater= 115.1 ft

Note: Input Elevations are based on existing plans, City GIS data, and field survey and have been adjusted by +2.421 feet to convert to NAVD 88 Datum

Crown of 36" SD @ Westside Channel

Node	Invert (ft)	Dia (in)	n	Length (ft)	Pipe Slope ft/ft	Flow (cfs)	Area (ft ²)	Wetted P (ft)	Hyd. Rad. (ft)	R ^{2/3} (ft) ^{0.67}	Velocity (ft/s)	S _f (ft)	H _f (ft)	K _{minor}	H _{minor} (ft)	H _{total} (ft)	HGL (ft)	Elev. Above (ft)	Freeboard (ft)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
							PI*(1) ² /4	PI*(1)	(4)/(5)	(6) ^{0.67}	(3)/(4)	n/1.49*(4) ^{0.487}	(2)*(9)	(11)	(11)*(8) ² /2g	(10)+(12)+(13)	TW+Σ(14)	(16)	(17)-(15)
36" SD Outfall to Westside Channel - East of English Oaks Avenue																			
1	112.14																115.14	118.0	2.9
		36	0.013	74	0.1472	38.6	7.07	9.42	0.75	0.83	5.46	0.0033	0.25					Top of Bank	
Cherry Blossom Lane - 54 Feet East of English Oaks Avenue																			
2	123.03													0.80	0.370	0.618	126.03	129.55	3.5
		36	0.013	54	0.0031	35.2	7.07	9.42	0.75	0.83	4.98	0.0028	0.15					Rim	
Cherry Blossom Lane at English Oaks Avenue																			
3	123.20													1.10	0.424	0.574	126.60	129.82	3.2
		24	0.013	615	0.0080	27.1	3.14	6.28	0.50	0.63	8.63	0.0144	8.83					Rim	
English Oaks Avenue at Sunnyside Lane																			
4	128.15													0.05	0.058	8.883	135.49	137.12	1.6
		24	0.013	170	0.0061	26.0	3.14	6.28	0.50	0.63	8.28	0.0132	2.25					Rim	
Whispering Wind Drive																			
5	129.18													0.85	0.904	3.150	138.64	138.62	0.0
		24	0.013	698	0.0017	6.5	3.14	6.28	0.50	0.63	2.07	0.0008	0.58					Rim	
6	130.39													0.10	0.007	0.583	139.22	139.42	0.2
		24	0.013	744	0.0031	6.5	3.14	6.28	0.50	0.63	2.07	0.0008	0.61					Rim	
7	132.69													0.15	0.010	0.624	139.84	142.42	2.6
		24	0.013	1079	0.0031	6.5	3.14	6.28	0.50	0.63	2.07	0.0008	0.89					TC	
Middlefield Drive at Whispering Wind Drive																			
8	136.02													0.80	0.053	0.944	140.79	143.40	2.6
		24	0.013	522	0.0069	4.5	3.14	6.28	0.50	0.63	1.43	0.0004	0.21					TC	
Middlefield Drive at Calamity Lane																			
9	139.61													0.10	0.003	0.210	141.00	149.92	8.9
		24	0.013	547	0.0026	2.6	3.14	6.28	0.50	0.63	0.83	0.0001	0.07					TC	
Edgewood Commercial - At 18" Stub to 24" SD Middlefield Drive																			
10	141.02													0.00	0.000	0.072	141.67	154.56	12.9
																		TC	

City of Tracy - Analysis of Existing Storm Drain System Proposed to Serve Edgewood Commercial Site in Edgewood Estates
 Hydraulic Grade Line Calculations - 10-Year Storm Analysis Using Crown of 36" SD That Discharges to the Headwater of the Westside Channel as the Starting WSE
 NOTE: Runoff from Edgewood Commercial Site INCLUDED, Plus Replacement of Existing 24" SD (English Oaks Avenue) with a 30" SD



Tailwater= 115.1 ft

Crown of 36" SD @ Westside Channel

Note: Input Elevations are based on existing plans, City GIS data, and field survey and have been adjusted by +2.421 feet to convert to NAVD 88 Datum

Node	Invert (ft)	Dia (in)	n	Length (ft)	Pipe Slope ft/ft	Flow (cfs)	Area (ft ²)	Wetted P (ft)	Hyd. Rad. (ft)	R ^{2/3} (ft) ^{0.67}	Velocity (ft/s)	S _f (ft)	H _f (ft)	K _{minor} (11)	H _{minor} (ft)	H _{total} (ft)	HGL (ft)	Elev. Above (ft)	Freeboard (ft)
	(1)	(2)	(3)	(4)	(5)	(6)	PI*(1) ² /4	PI*(1)	(4)/(5)	(6) ^{0.67}	(3)/(4)	(9)	(10)	(11)	(12)	(14)	(15)	(16)	(17)
															(11)*(8) ² /2g	(10)+(12)+(13)	TW+Σ(14)		(16)-(15)
36" SD Outfall to Westside Channel - East of English Oaks Avenue																			
1	112.14	36	0.013	74	0.1472	42.1	7.07	9.42	0.75	0.83	5.96	0.0040	0.29				115.14	118.0	2.9
																			Top of Bank
Cherry Blossom Lane - 54 Feet East of English Oaks Avenue																			
2	123.03	36	0.013	54	0.0031	38.8	7.07	9.42	0.75	0.83	5.49	0.0034	0.18	0.80	0.441	0.735	126.03	129.55	3.5
																			Rim
Cherry Blossom Lane at English Oaks Avenue																			
3	123.20	30	0.013	615	0.0080	32.4	4.91	7.85	0.63	0.73	6.60	0.0062	3.84	1.10	0.515	0.697	126.73	129.82	3.1
																			Rim
English Oaks Avenue at Sunnyside Lane																			
4	128.15	30	0.013	170	0.0061	31.4	4.91	7.85	0.63	0.73	6.40	0.0059	1.00	0.05	0.034	3.871	130.60	137.12	6.5
																			Rim
Whispering Wind Drive																			
5	129.18	24	0.013	698	0.0017	11.9	3.14	6.28	0.50	0.63	3.79	0.0028	1.93	0.85	0.540	1.536	132.13	138.62	6.5
																			Rim
6	130.39	24	0.013	744	0.0031	11.9	3.14	6.28	0.50	0.63	3.79	0.0028	2.06	0.10	0.022	1.954	134.09	139.42	5.3
																			Rim
7	132.69	24	0.013	1079	0.0031	11.9	3.14	6.28	0.50	0.63	3.79	0.0028	2.99	0.15	0.033	2.092	136.18	142.42	6.2
																			TC
Middlefield Drive at Whispering Wind Drive																			
8	136.02	24	0.013	522	0.0069	11.2	3.14	6.28	0.50	0.63	3.57	0.0025	1.28	0.80	0.178	3.164	139.34	143.40	4.1
																			TC
Middlefield Drive at Calamity Lane																			
9	139.61	24	0.013	547	0.0026	11.1	3.14	6.28	0.50	0.63	3.53	0.0024	1.32	0.10	0.020	1.299	140.64	149.92	9.3
																			TC
Edgewood Commercial - At 18" Stub to 24" SD Middlefield Drive																			
10	141.02													0.00	0.000	1.317	142.60	154.56	12.0
																			TC

APPENDIX C

MEMORANDUM

From: Frederik Venter, PE and Colin Ogilvie, Kimley-Horn and Associates

To: Robert Armijo, PE, City of Tracy

Date: April 9, 2020

Re: **Edgewood Commercial Traffic Review - Final**

1. Executive Summary

The proposed Edgewood Commercial development (Project) consists of a 12-fuel pump gas station and plans for a future coffee kiosk. The Project is located on the south east corner of Corral Hollow Road and Middlefield Drive. Driveways will be off Middlefield Drive and Corral Hollow Road.

With the addition of the Project, analysis shows that the existing side street stop control for Project Driveway 1 on Middlefield Drive will be adequate, and a signal is not warranted to be installed by the Project. The driveway is located directly opposite the Waterstone Apartment Complex side street stop control will be present on both north-south approaches.

Congestion currently occurs at the Corral Hollow Road/Middlefield Drive intersection in the southbound direction and the westbound direction in the mornings. The LOS results do not reflect this due to oversaturated traffic conditions and the counted cars is based on capacity, not true demand. Queueing occurs in the southbound direction due to the lane drop immediately north of the intersection. Westbound left turn queues also exceed capacity, partially due to cut through traffic from the east.

Based on this queueing, several striping, median, and signal modification improvements are recommended on the roadways in the immediate vicinity of the proposed project.

1.1 Westbound Approach on Middlefield Drive

Queues from the Corral Hollow Road and Middlefield Drive/Summit Drive intersection queued and blocked the Edgewood Driveway. Project traffic cannot exit the driveway and will have to wait for courtesy gaps in the morning. To alleviate the queue spillback, the following is recommended:

1. Stripe the existing westbound through/right lane to a left/through/right lane. The addition of a second left turn lane will improve operations at the intersection.
2. Modify the Middlefield Road median between Corral Hollow Road and Driveway 1 to a constant 4' width to maximize queue capacity.
3. Provide split phasing at the intersection of Corral Hollow Road and Middlefield Drive/Summit Drive for the westbound and eastbound approaches.
4. Two receiving lanes shall be striped on southbound Corral Hollow Drive to receive the dual turning lane traffic. The merge in the southbound direction is substandard, however, vehicles will find gaps. Some spillback could be expected into the intersection, and signal timing should be managed to minimize this occurrence. The overall benefit from adding the second westbound left turn lane will however improve the current deficient operations.

1.2 Southbound and Northbound Approaches on Corral Hollow Road

Queues in the southbound direction of Corral Hollow Road spill back to Peony Drive from the Corral Hollow Road due to the lane merge. The project will add traffic in this travel direction in the morning and to alleviate the queue spillback, the following is recommended:

1. Stripe two southbound travel lanes from Peony Drive to the merge just before the rail tracks. The southbound right turn trap lane will be restriped at Summit Drive as a through lane and the right turn lane retained.
2. Stripe two northbound travel lanes from the project frontage to Peony Drive. The curb lane will then be a right turn trap lane at Peony Drive until Corral Hollow Road is widened further north. The merge distance in the southbound direction just before the rail tracks is substandard, however, vehicles will slow down and find gaps. The speed limit should be lowered to accommodate these movements to at least 10 mph less than what is currently posted. Enforcement should occur. Signing and striping should be implemented to exceed the CA MUTCD minimum recommendations for lane merges. Some spillback because of the merge could be expected, and signal timing should be managed to minimize this occurrence. The overall benefit from adding the additional capacity will however improve the current deficient operations.

The Edgewood frontage must conform with Section E of the Corral Hollow Plan Line (November 7, 2016). The following geometry should be provided at the intersection of Corral Hollow Road and Middlefield Drive/Summit Drive:

1. A 12-foot northbound right turn pocket
2. A 6-foot northbound bike slot
3. Two 11-foot northbound through lanes

1.3 Coffee Kiosk

The planned future coffee kiosk does not provide adequate queuing capacity for the anticipated demand and should be redesigned to include the following:

1. Order windows for both (2) approaches
2. Queue space for 3 car lengths (25 feet each) between the order window and the pick-up window
3. Queue space for 3 car lengths (25 feet each) at and before the order window

1.4 Project Driveway #1 (Middlefield Drive)

Project Driveway #1 is anticipated to have adequate queue capacity to store the required vehicles. The anticipated queuing under Background Plus Project Conditions is 3 vehicles (75 feet).

It should also be noted that the current configuration of the driveway is an interim condition. When the full site is completed, the queues are anticipated to extend beyond the gas station driveway.

1.5 Driveway Access Review

It is recommended that the following changes be implemented for Project Driveway #1:

1. Add stop sign, limit line, and stop pavement markings.

2. Restripe to one incoming lane for the interim condition
3. The driveway will still be wider than the 34-foot commercial driveway maximum (City of Tracy Design Standard 3.09 (B)). This will require a design exception, if acceptable.
4. Convert driveway curb returns to driveway flares. The existing driveway may need to be reconstructed if it is not ADA-compliant.

It is recommended that the following changes be implemented for Project Driveway #2 (Corral Hollow Road):

1. Add a stop sign, right turn only sign (CAMUTCD Sign R3-5(R)), limit line, stop pavement markings, and right turn arrow pavement marking.
2. Add “tuff curb”, or similar product, in the Corral Hollow Road painted median to deter left turn movements in and out of the driveway.
3. The driveway is wider than the 34-foot commercial driveway maximum (City of Tracy Design Standard 3.09 (B)). This will require a design exception, if acceptable.
4. Convert driveway curb returns to driveway flares. The existing driveway may need to be reconstructed if it is not ADA-compliant.

1.6 Internal Circulation Review

The following recommendations should be implemented to improve internal circulation:

1. Redesign the eastern kiosk driveway to accommodate passenger car turning templates.
2. Add centerline striping in main drive aisle.

1.7 Turning Templates

Vehicle turning templates were completed for the following design vehicles:

- Passenger Car – American Association of State Highway Transportation Officials (AASHTO)
- Fuel Truck – Transoft Solutions AutoTurn 10
- Fire Truck – National Cooperation Highway Research Program (NCHRP 659)

It was determined that the design vehicles will be able to perform movements to/from the Project site.

2. Introduction

This memorandum presents a traffic analysis of the proposed Edgewood Commercial Development (Project) located at the southeast corner of Middlefield Drive and Corral Hollow Road intersection (APN: 248-080-13). The Project proposes to include 6 fueling islands (12 gas pumps), 3,884 square foot convenience store, 7 electric vehicle charging stations, 1 future kiosk development. The Project will build 20 parking spaces. There will be two driveways to access the Project site: one along Corral Hollow Road and one along Middlefield Drive. Parcel 248-080-13 is anticipated to include a future commercial development and carwash that is not proposed yet with the current Project.

The Project site plan is shown in **Figure 1**.

This memorandum provides a limited traffic study of the Project driveways and provides an engineering review of the Project site frontage and driveways.

3. Study Methodology

3.1 *Development Conditions*

This traffic study is based upon the following development conditions:

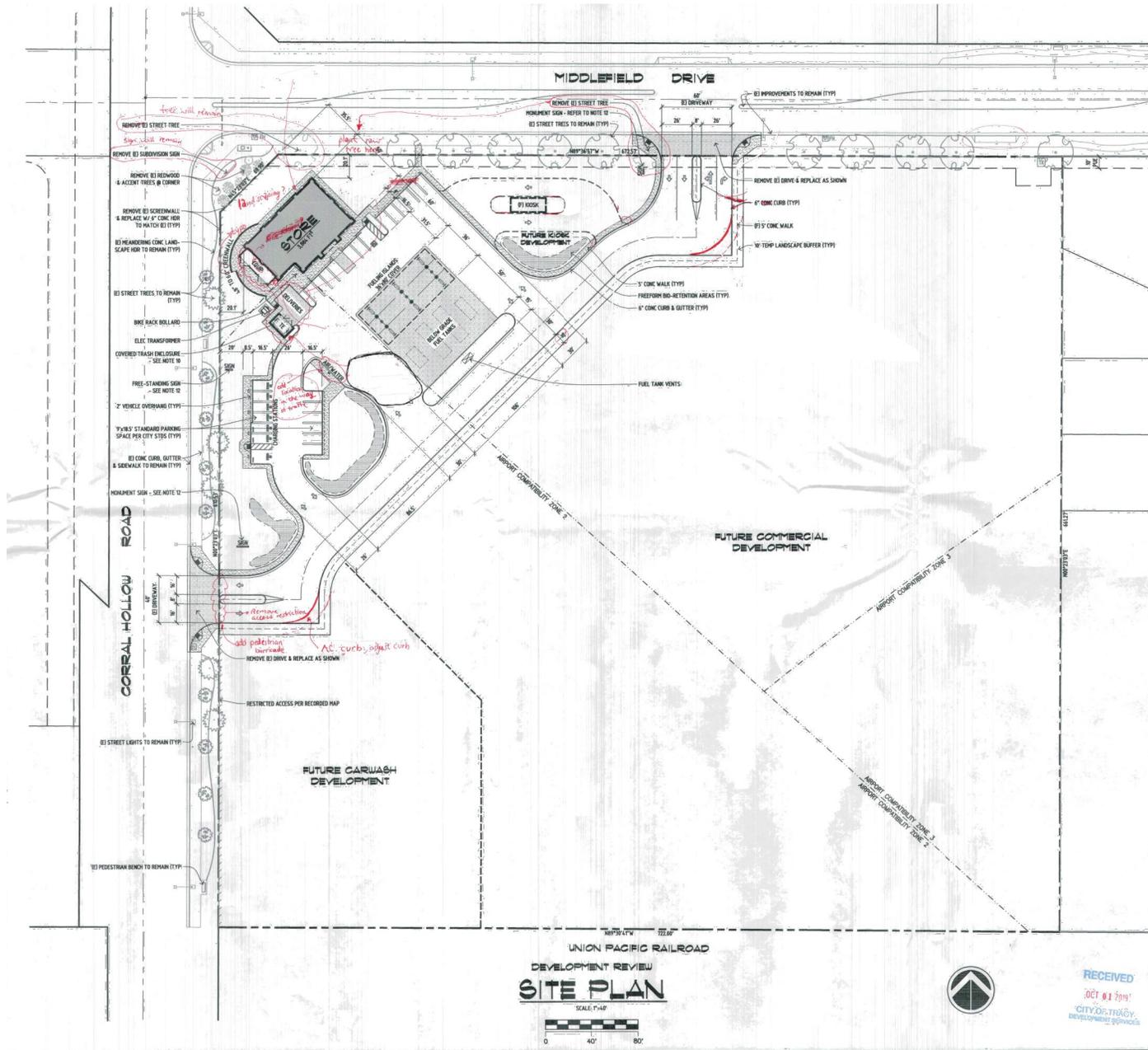
- Existing (2019) Conditions represents current traffic count data collected in December 2019 and existing roadway geometry and traffic control.
- Background Plus Project Conditions represents trips associated with approved but unconstructed projects (Tracy Hills) and the Project as well as the planned roadway geometry and traffic control associated with the Project.

3.2 *Study Intersections*

The intersections studied in this analysis include:

1. Middlefield Drive and Waterstone Apartments/Project Driveway #1
2. Corral Hollow Road and Middlefield Drive/Summit Drive
3. Corral Hollow Road and Project Driveway #2

The Project location and study intersections are shown in **Figure 2**.



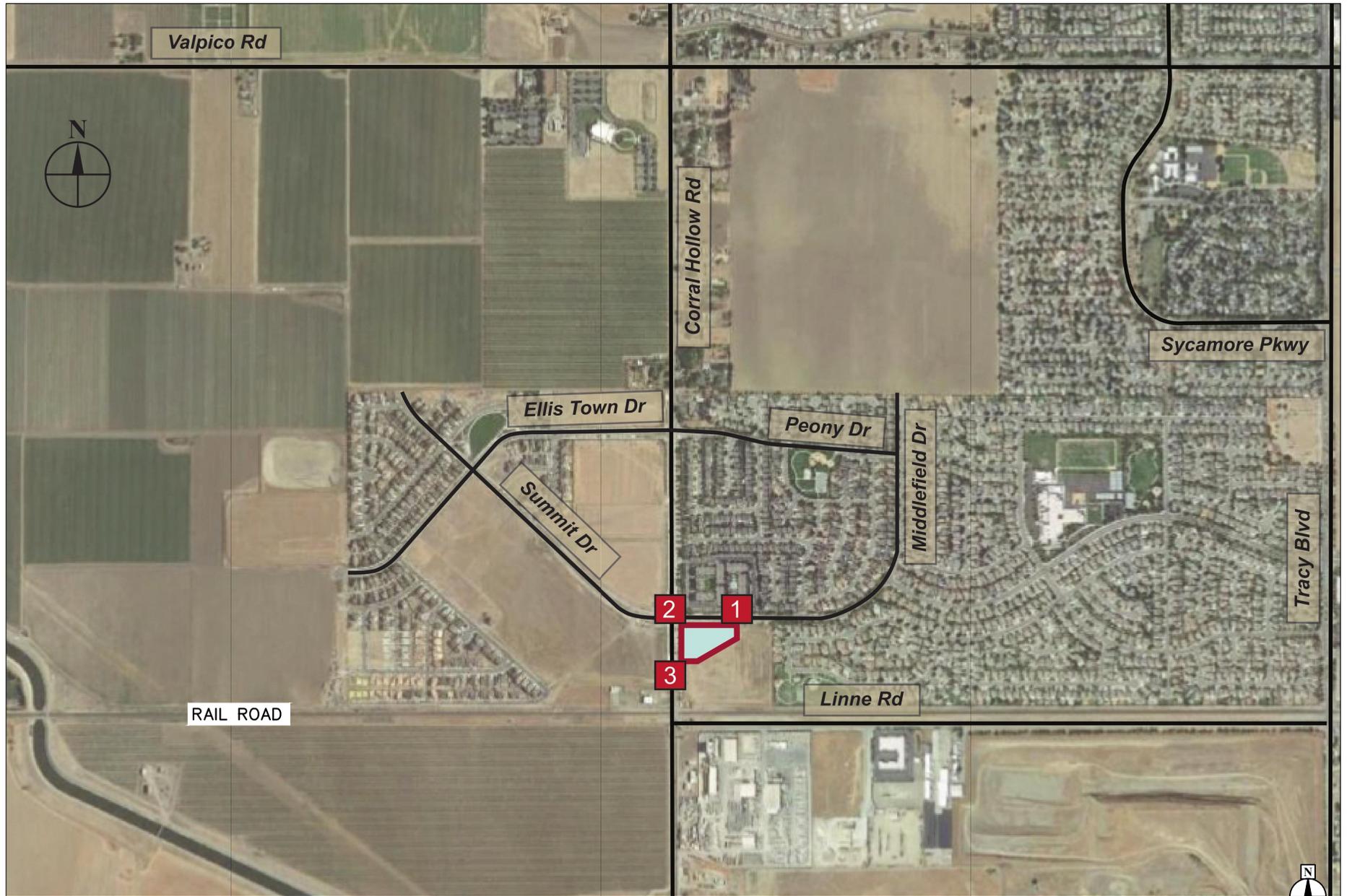


FIGURE 2
PROPOSED PROJECT
SITE LOCATION AND PROJECT VICINITY MAP
Edgewood Commercial

4. Existing Conditions

To analyze Existing Conditions, turning movement counts were collected on Tuesday December 17, 2019 at the following intersections:

1. Middlefield Drive and Waterstone Apartments/Project Driveway #1
2. Corral Hollow Road and Middlefield Drive/Summit Drive

Intersection #3 is a future intersection with the Project and was not analyzed in this scenario.

Existing traffic control and geometry are shown in **Figure 3** while existing volumes are shown in **Figure 4**.

Level of Service (LOS) Results

Table 1 illustrates the Level of Service (LOS) and delay under Existing Conditions. Even though the LOS analysis at the intersection of Corral Hollow Road and Middlefield Drive is accepted, field observations indicate that the southbound queue and the westbound left turn queue overflows in the AM peak and the demand exceeds the capacity. The LOS results indicate the overall LOS an also the vehicles counted, not the true demand.

Table 1 – Existing Conditions LOS Results

#	Intersection	LOS Standard ³	Control Type ⁴	Existing (2019) LOS Results					
				AM Peak Hour			PM Peak Hour		
				Movement	Delay ⁵	LOS	Movement	Delay ⁵	LOS
1	Middlefield Dr & Waterstone Apartments/ Project Driveway #1	D	SSSC	-	-	-	-	-	-
	<i>Worst Approach</i>			<i>SB</i>	<i>11.3</i>	<i>B</i>	<i>SB</i>	<i>10.2</i>	<i>B</i>
2	Corral Hollow Rd & Middlefield Dr/Summit Dr	D	Signal	-	32.8	C	-	16.2	B
3	Corral Hollow Rd & Project Driveway #2	Driveway Does Not Exist							

- Notes:
1. LOS results do NOT indicate queueing overflow on the southbound and westbound approaches.
 2. Analysis performed using HCM 6 methodologies.
 3. Overall level of service (LOS) standard for the City is D.
 4. SSSC – Side-Street Stop-Control Intersection
 5. Delay indicated in seconds/vehicle.
 6. Intersections that fall below LOS standard are shown in **bold**.

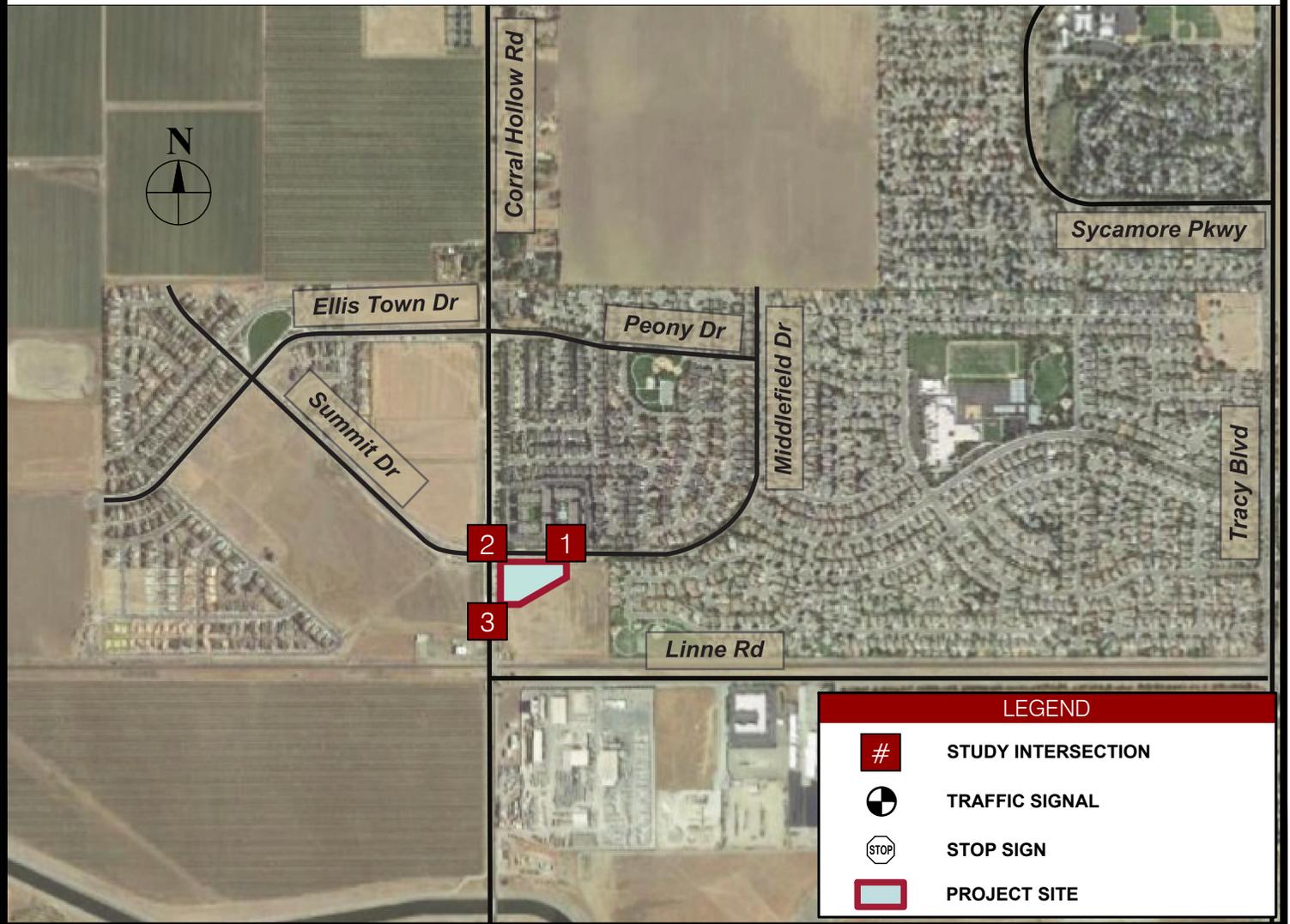
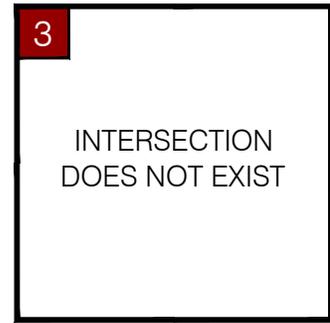
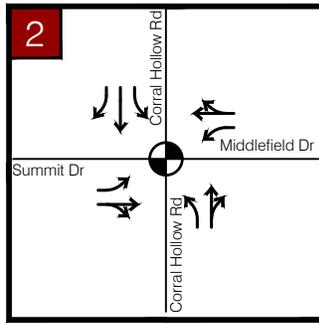
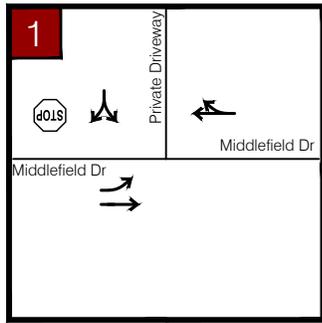
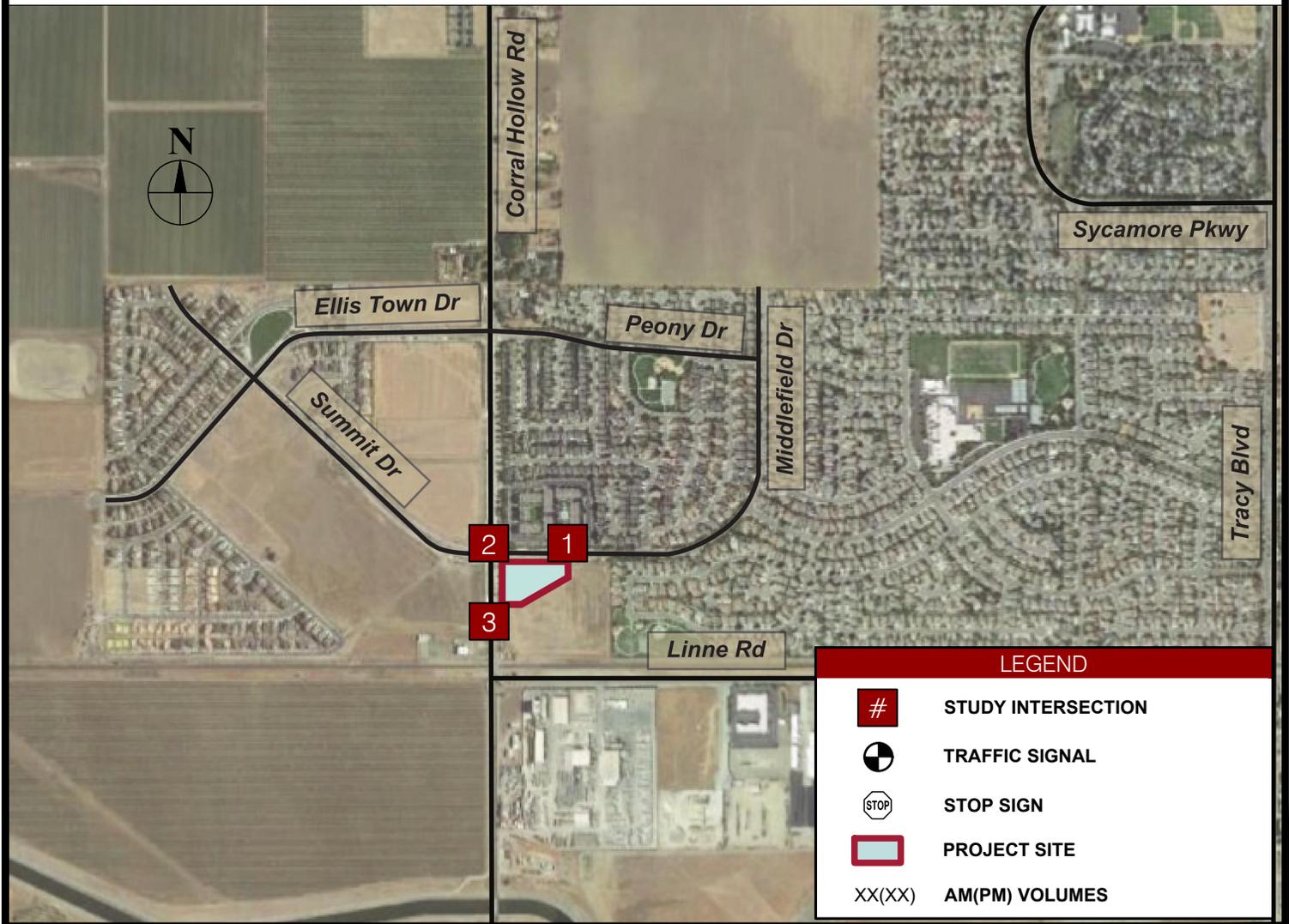
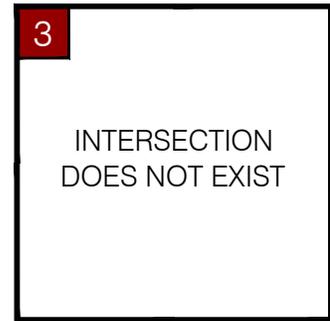
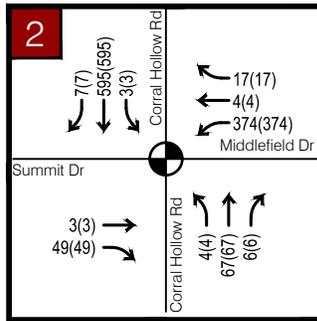
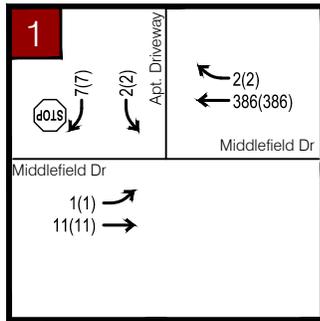


FIGURE 3



5. Trip Generation, Distribution, and Assignment

5.1 Trip Generation

Trip generation for the proposed Project was calculated using trip generation rates contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual*, 10th Edition. The following ITE average rates were used for the Project:

- Gasoline/Service Station with Convenience Market (LUC 945) – 12 Vehicle Fueling Positions
- Coffee/Donut Shop with Drive-Through Window and No Indoor Seating – 400 Square foot coffee shop kiosk

The proposed Project is anticipated to generate 3,264 daily, 39 AM peak hour (22 IN / 17 OUT), and 17 PM peak hour (11 IN / 6 OUT) net trips.

Table 2 shows the estimated trip generation for the Project.

5.2 Trip Distribution and Assignment

Based on the existing count data, a distribution was created for the Edgewood Commercial Project and is shown in **Figure 5**.

Figure 6 illustrates the primary Project trips, and **Figure 7** shows the diverted and pass-by trip assignment.

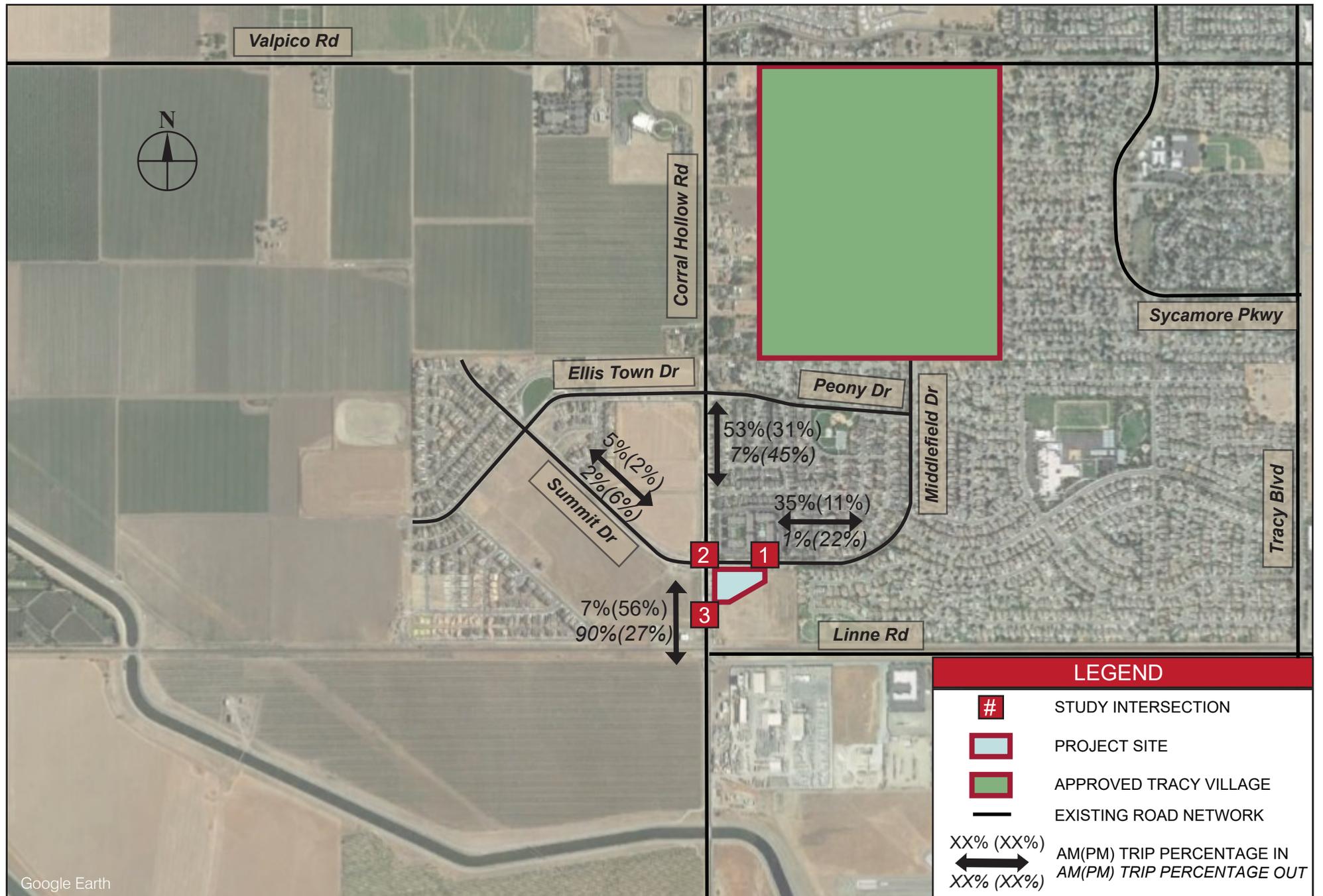
Table 2– Trip Generation

Land Uses ¹	ITE Land Use	Project Size ⁴		DAILY	AM PEAK HOUR			PM PEAK HOUR				
				Total ¹	Total Peak Hour ¹	IN	/	OUT	Total Peak Hour ¹	IN	/	OUT
Trip Generation Rates												
Gasoline/Service Station With Convenience Market ²	945	-	VFP	205.36	12.47	51%	/	49%	13.99	51%	/	49%
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating ³	938	-	KSF	2000	337.04	50%	/	50%	83.33	50%	/	50%
Gross External Trips												
Gasoline/Service Station With Convenience Market	12	VFP		2464	150	77	/	73	168	86	/	82
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating	0.4	KSF		800	135	68	/	67	33	17	/	16
GROSS EXTERNAL TRIPS				3,264	285	145	/	140	201	103	/	98
Pass-By Trips												
Gasoline/Service Station With Convenience Market (AM=62%, PM=56%)					(94)	(47)	/	(47)	(94)	(47)	/	(47)
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating (AM & PM=89%)					(120)	(60)	/	(60)	(30)	(15)	/	(15)
TOTAL PASS-BY TRIPS					(214)	(107)	/	(107)	(124)	(62)	/	(62)
Diverted Trip Trips												
Gasoline/Service Station With Convenience Market (AM=21%, PM=35%)					(32)	(16)	/	(16)	(60)	(30)	/	(30)
TOTAL DIVERTED TRIPS					(32)	(16)	/	(16)	(60)	(30)	/	(30)
Primary Trips												
Gasoline/Service Station With Convenience Market					24	14	/	10	14	9	/	5
Coffee/Donut Shop with Drive-Through Window and No Indoor Seating					15	8	/	7	3	2	/	1
NET NEW PROJECT TRIPS					39	22	/	17	17	11	/	6

Notes:

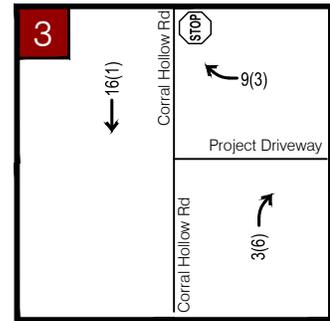
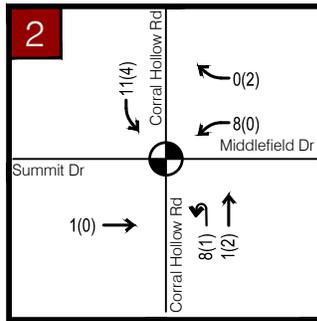
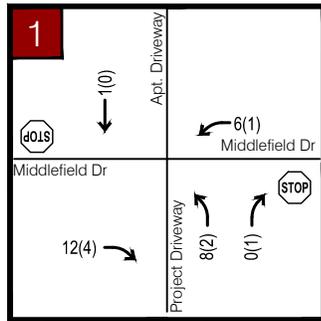
1. Trip generation rates published by Institute of Transportation Engineers (ITE), "Trip Generation," 10th Edition, 2017.
2. ITE Code 945 (Gas Station with Convenience Market); Base on ITE average rates.
3. ITE Code 938 (Coffee/Donut Shop with Drive-Through Window and No Indoor Seating); Based on ITE average rates.
4. VFP = Vehicle Fueling Position, KSF = 1,000 Square Feet

Source: Kimley-Horn and Associates, Inc., 2020



Google Earth

FIGURE 5
PROJECT TRIP DISTRIBUTION
EDGEWOOD COMMERCIAL



GENERAL NOTES

* U-TURNS WERE ANALYZED AS LEFT TURN MOVEMENTS

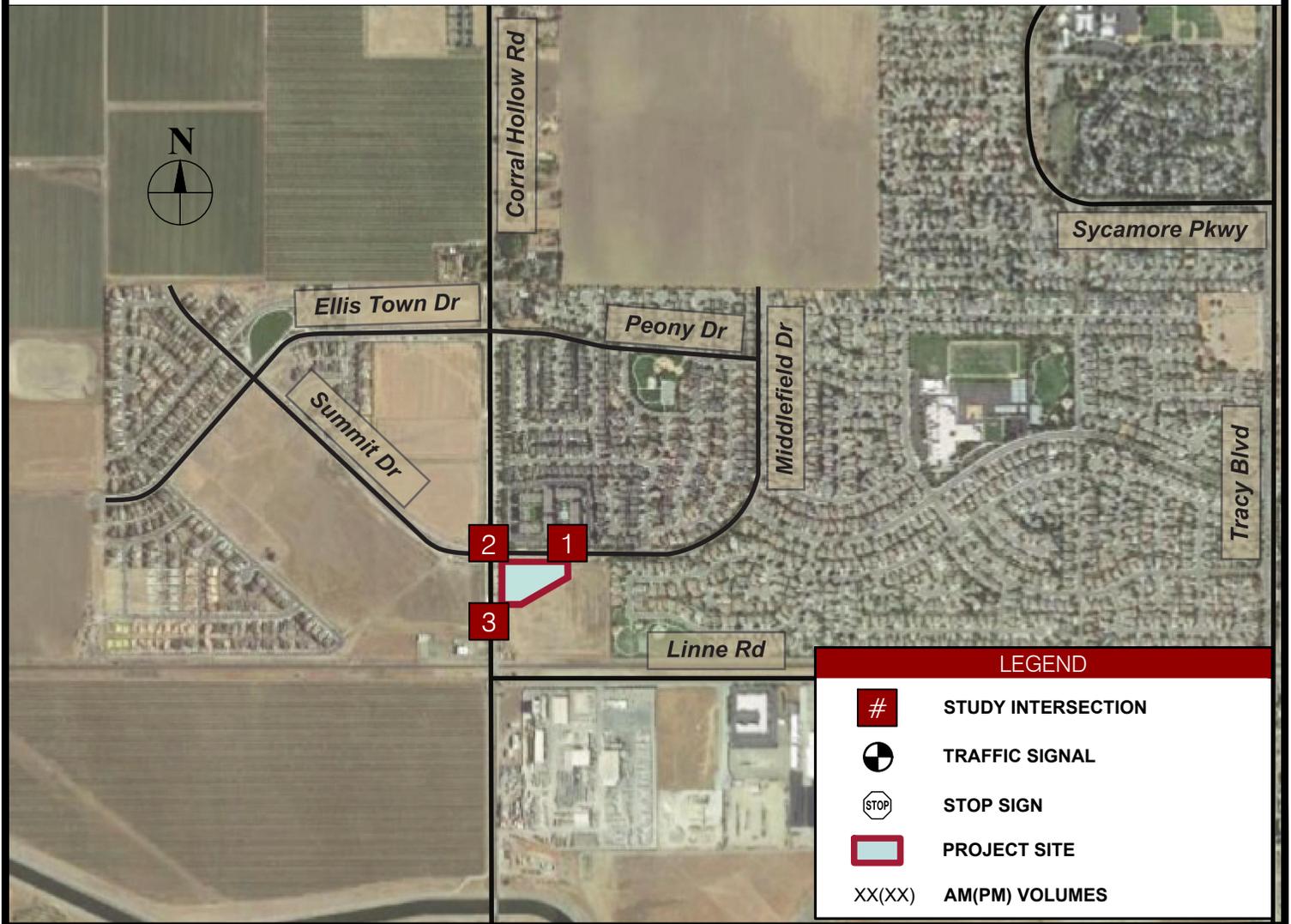


FIGURE 6

**PROJECT
PRIMARY TRIPS**

EDGEWOOD COMMERCIAL

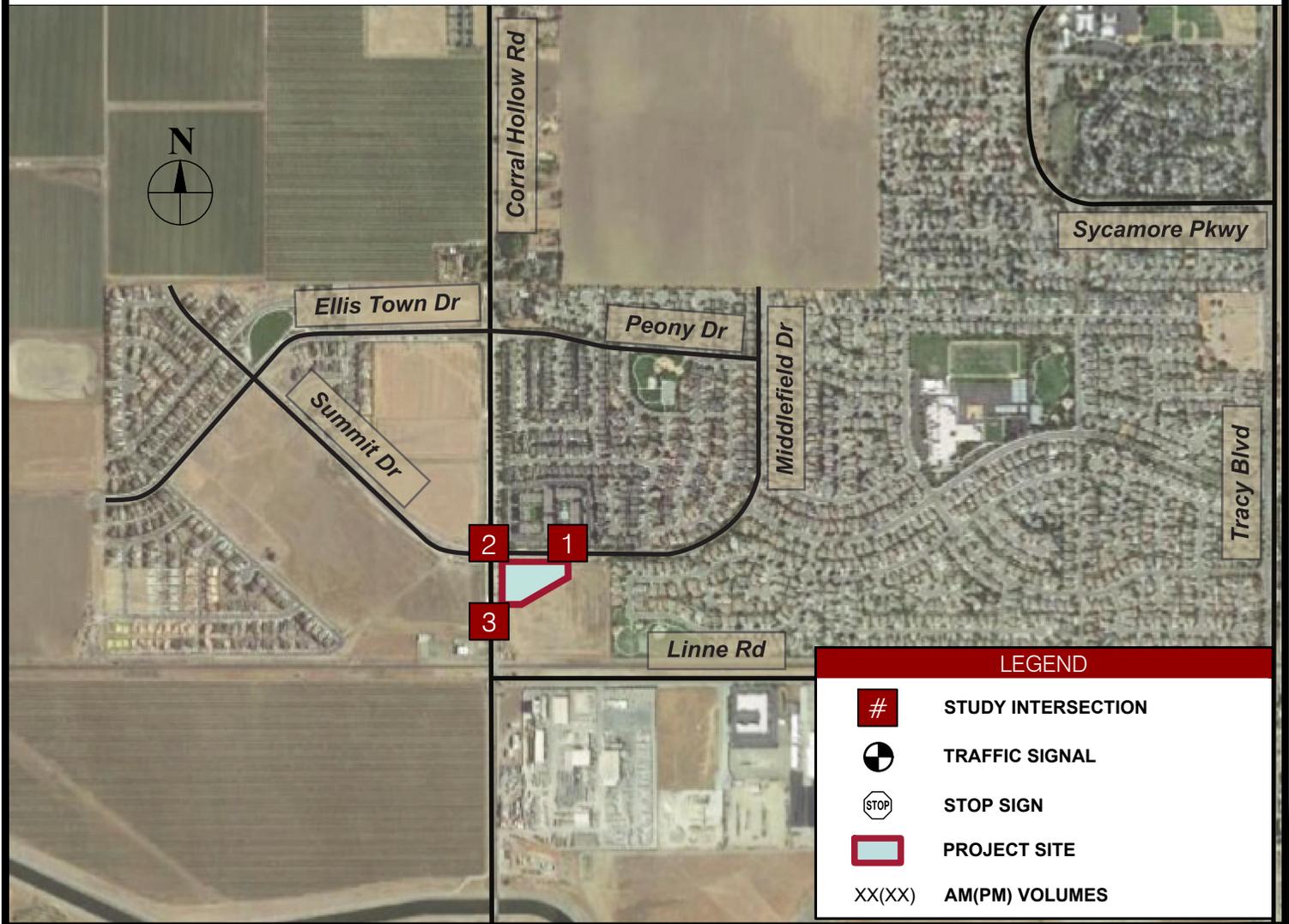
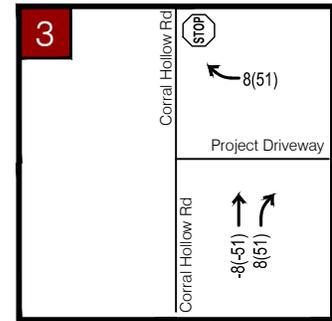
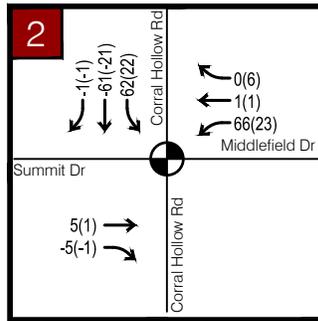
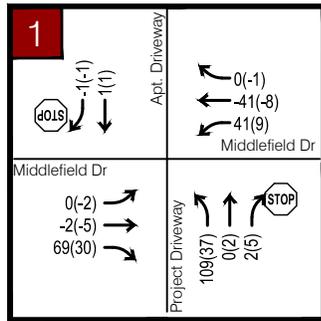


FIGURE 7

PROJECT
PASS-BY AND DIVERTED TRIPS
 EDGEWOOD COMMERCIAL

6. Background Plus Project Conditions

Traffic operations were evaluated at the Intersection 1 under Background Plus Project Conditions with traffic generated by background projects and the proposed Project. Volumes from the Tracy Village TIA were used to determine background projects traffic volumes.

The following improvements along Corral Hollow Road are anticipated to be implemented with the Project:

- Additional Northbound through lane
- Northbound right turn lane

The anticipated roadway geometry for the proposed Project is illustrated in **Figure 8** and volumes for this scenario are shown in **Figure 9**.

Level of Service (LOS) Results

Table 3 illustrates the Level of Service (LOS) and delay under Background Plus Project Conditions.

Table 3 – Background Plus Project Conditions LOS Results

#	Intersection	LOS Standard ³	Control Type ⁴	Background Plus Project Conditions LOS Results					
				AM Peak Hour			PM Peak Hour		
				Movement	Delay ⁵	LOS	Movement	Delay ⁵	LOS
1	Middlefield Dr & Waterstone Apartments/ Project Driveway #1	D	SSSC	-	-	-	-	-	-
	<i>Worst Approach</i>			<i>NB</i>	<i>15.9</i>	<i>C</i>	<i>NB</i>	<i>10.9</i>	<i>B</i>
2	Corral Hollow Rd & Middlefield Dr/Summit Dr	D	Signal	-	40.5	D	-	17.3	B
3	Corral Hollow Rd & Project Driveway #2	RIRO Driveway Not Analyzed for LOS							

Notes:

1. LOS results do NOT indicate queuing overflow on the southbound and westbound approaches.
2. Analysis performed using HCM 6 methodologies.
3. Overall level of service (LOS) standard for the City is D.
4. SSSC – Side-Street Stop-Control Intersection
5. Delay indicated in seconds/vehicle.
6. Intersections that fall below LOS standard are shown in **bold**.

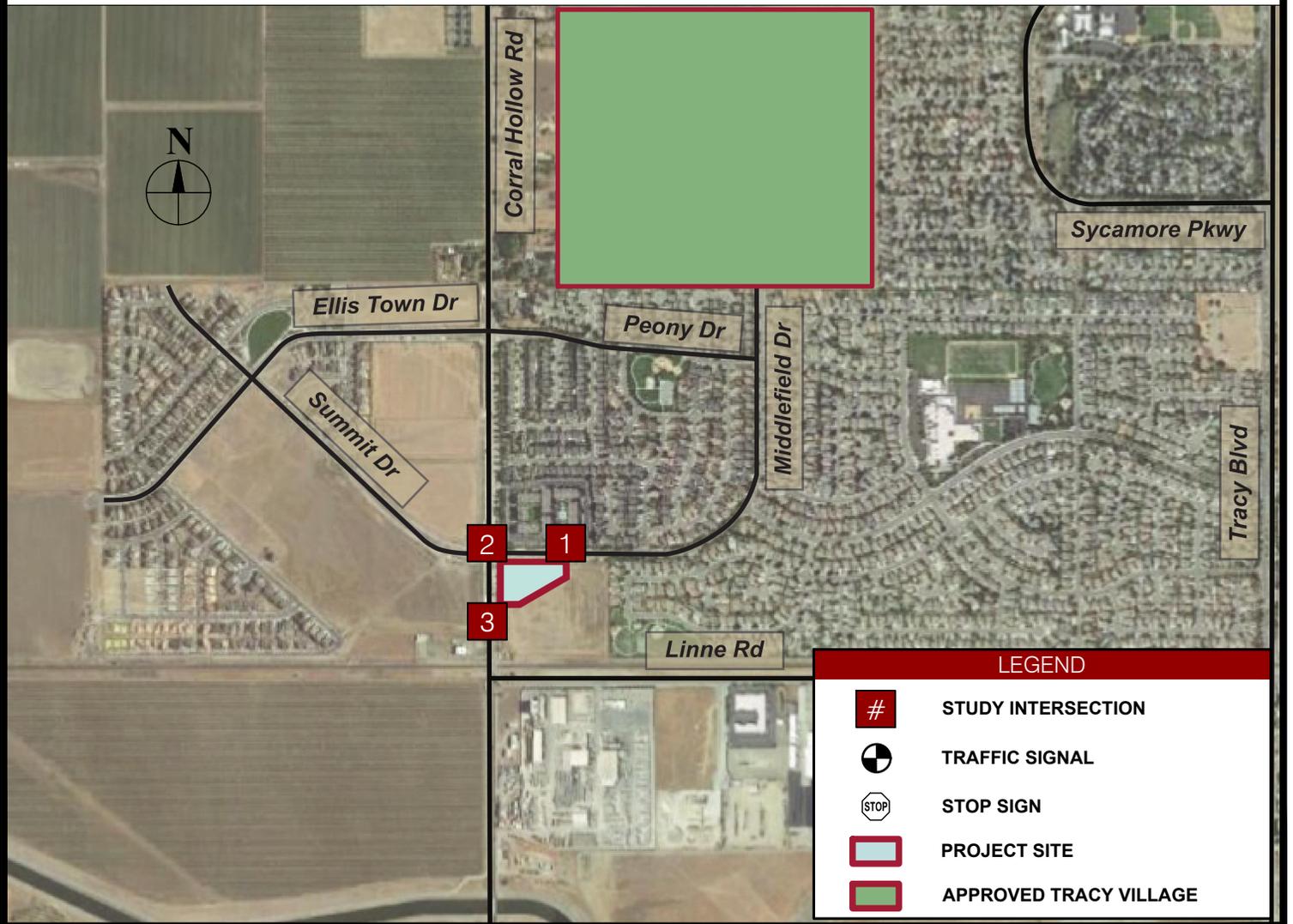
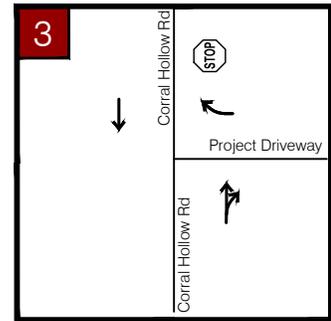
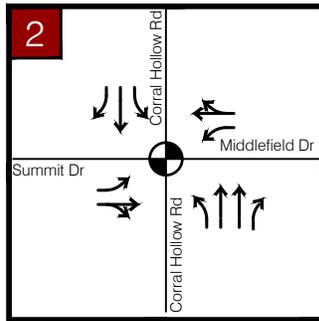
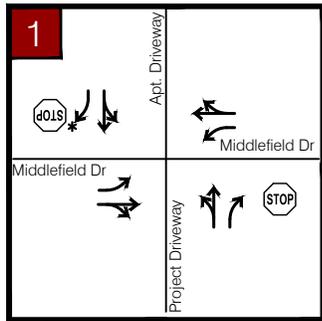
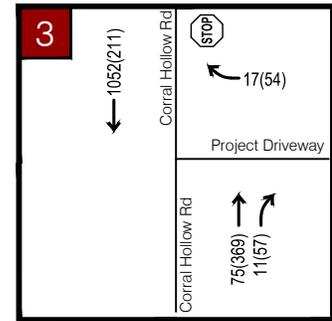
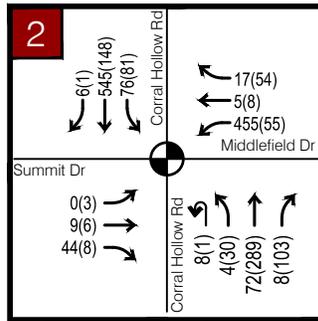
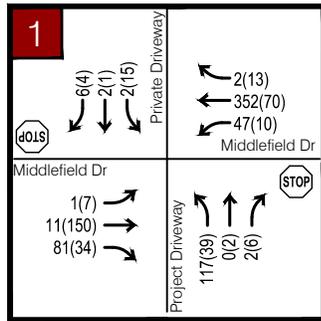


FIGURE 8



GENERAL NOTES

* U-TURNS WERE ANALYZED AS LEFT TURN MOVEMENTS

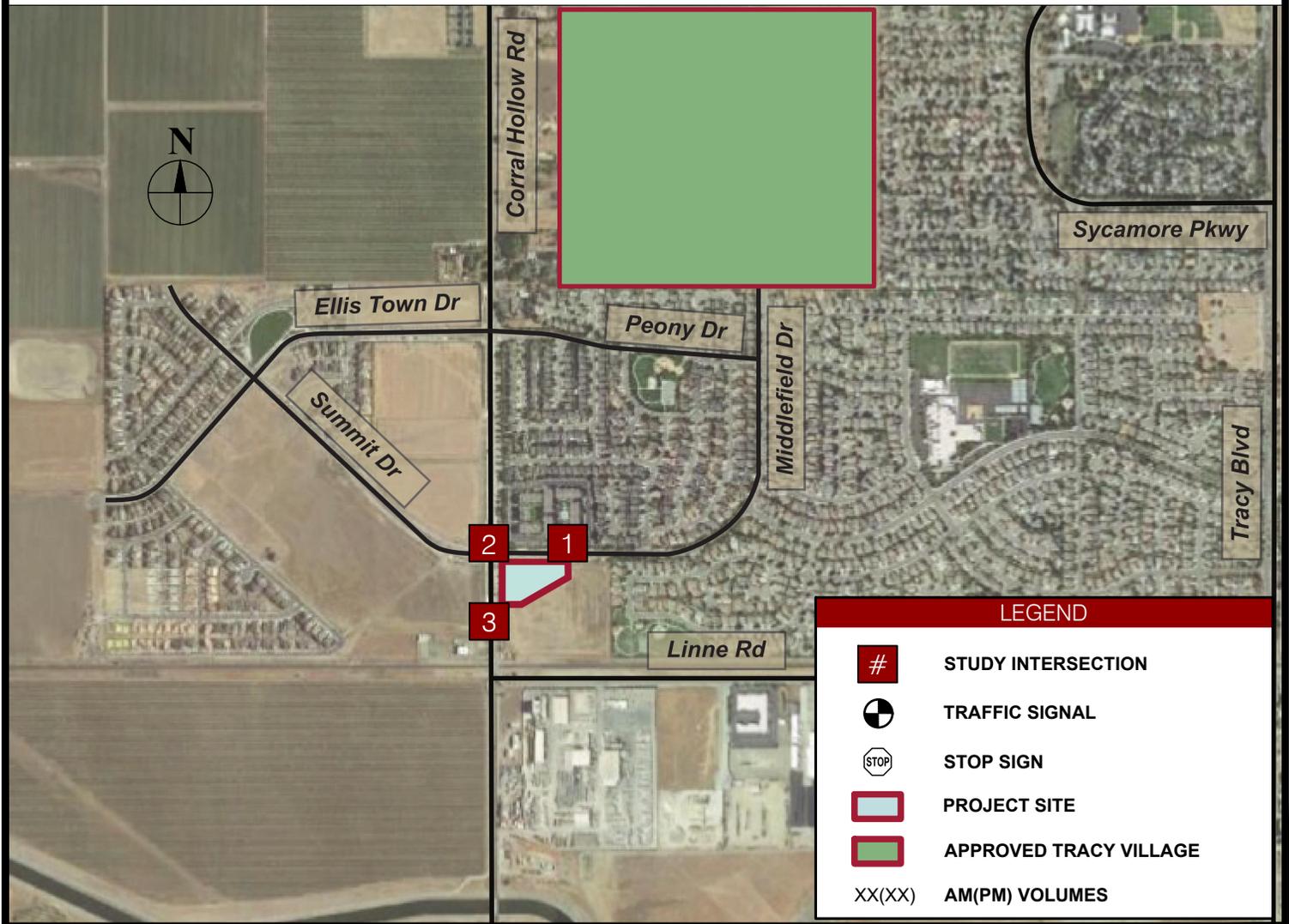


FIGURE 9

BACKGROUND PLUS PROJECT VOLUME

EDGEWOOD COMMERCIAL

7. Queuing Analysis

This section discusses the queuing results for the following locations:

1. Future Coffee Kiosk
2. Project Driveway #2 (Middlefield Drive) and Corral Hollow Road and Middlefield Drive

7.1 *Coffee Kiosk*

To determine queuing at the future coffee kiosk, service times and queuing information was recorded at a site similar to the Project. The site observed was an existing Caffino Drive-Thru Espresso located near the intersection of Homestead Road and Kiely Boulevard in Santa Clara, CA. The kiosk has two drive-through windows (one for each direction) where customers order and pick up drinks at the same window. The average service time, the total time a vehicle waited at the window, recorded for this site was approximately 140 seconds; however, trips to/from the observed site were fewer than the ITE trip generation estimates.

The AM peak hour was used for the queuing analysis because it has the higher trip generation. For a more conservative analysis, the AM trips used for the queuing analysis were derived from the ITE trip rates (provided in **Table 2**) rather the field observations. Since there are two windows for the kiosk, it was assumed that half of the trips would use each drive-through window (50-50 distribution); therefore, the AM trips were halved. It was then determined (using ITE's queuing analysis) that a service rate of 140 seconds is not adequate for the anticipated trips to the coffee kiosk and that queues will spill back onto other parts of the project site.

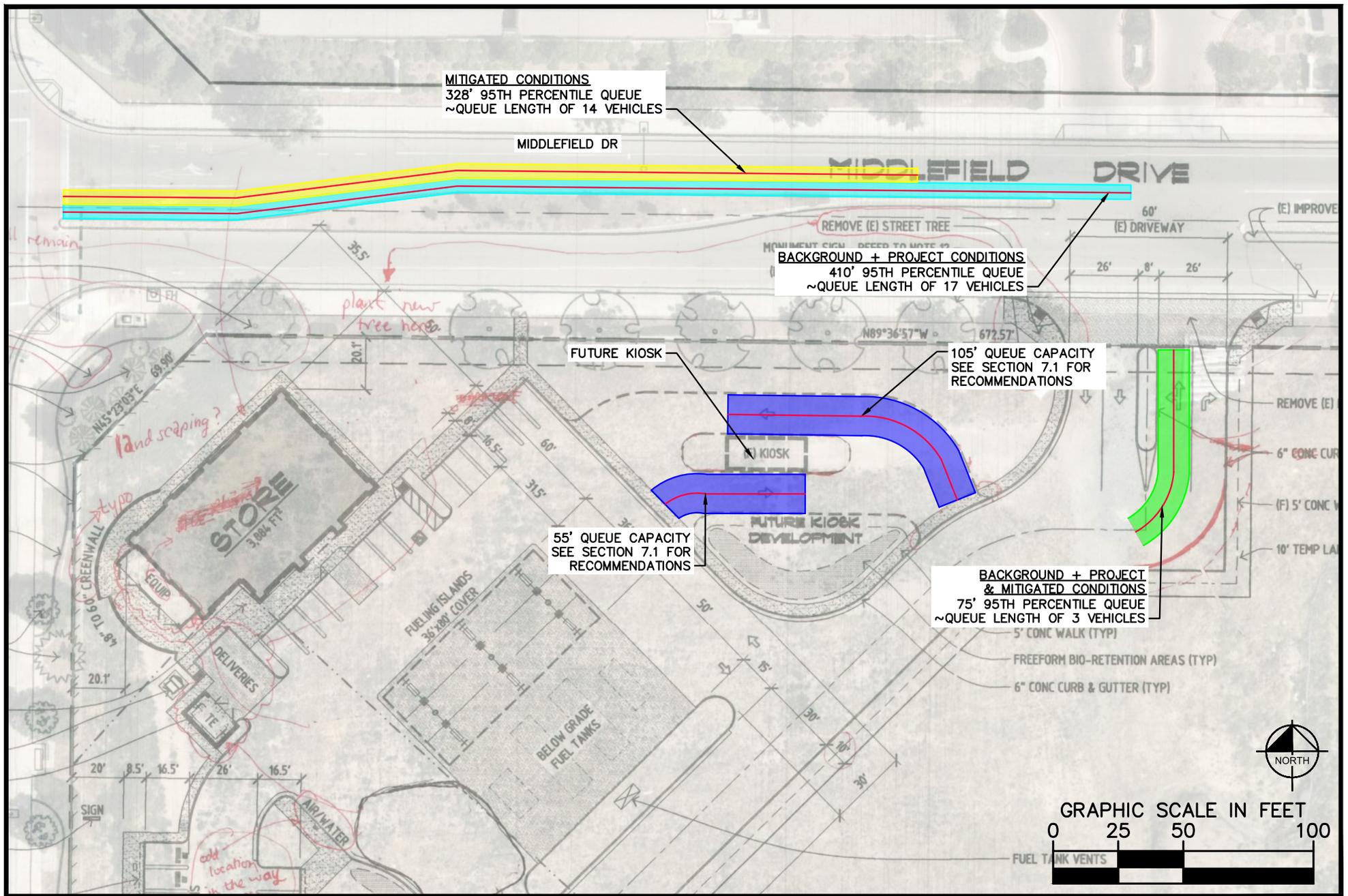
With a total service time of 140 seconds in the driveway, it is recommended to install order windows, or call-in menu boards, to separate the order time and the time to make the drinks. It is anticipated that the average order time will be 40 seconds, and applying the ITE queuing formulas, the analysis indicates that a minimum of 3 car lengths (25 feet each) should be provided at and behind the order window.

With a 40-second order time, a maximum of 100 seconds is required to complete a full service for one vehicle. This requires a minimum of 3 car lengths (25 feet each) between the order window and pick-up window.

The planned future coffee kiosk does not provide adequate queuing capacity for the anticipated demand and should be redesigned to include the following:

1. Order windows for both (2) approaches
2. Queue space for 3 car lengths (25 feet each) between the order window and the pick-up window
3. Queue space for 3 car lengths (25 feet each) at and before the order window

Figure 10 provides the queue capacity for the future coffee kiosk, Project Driveway 1, and the westbound left turn lane at the intersection of Middlefield and Corral Hollow.



7.2 Project Driveway 1 (Middlefield Drive)

To determine queuing at the Middlefield Driveway (Driveway 1), the 95th-percentile queue from the Background Plus Project Conditions was analyzed using SimTraffic simulations and has been provided in **Table 4**. The AM peak hour was chosen for queuing analysis because the intersection has higher traffic volumes during this peak hour.

From the analysis provided in **Table 4**, the driveway will have adequate queuing capacity; however, drivers will not have adequate gaps to perform the northbound left turn movement. Vehicles performing westbound movements at the Corral Hollow Road and Middlefield Drive/Summit Drive intersection queue and block the Edgewood driveway preventing vehicles from exiting. Also, queueing occurs in the southbound direction in the AM. This occurs primarily because of the southbound right turn trap lane and subsequent merge movements before the intersection on Summit Drive/Middlefield Drive.

Table 4 – 95th-Percentile Queue Results

#	Intersection	Movement /Approach	95 th Percentile Queue (ft)
			AM Peak Hour
1	Middlefield Dr & Waterstone Apartments/Project Driveway 1	NBL	3 vehicles (75 feet)
2	Corral Hollow Rd & Middlefield Dr/Summit Dr	WB	17 vehicles (410 feet)

Based on this queueing, several striping and signal modification improvements are recommended on the roadways in the immediate vicinity of the proposed project.

Westbound Approach on Middlefield Drive: Queues from the Corral Hollow Road and Middlefield Drive/Summit Drive intersection queued and blocked the Edgewood Driveway. Project traffic cannot exit the driveway and will have to wait for courtesy gaps in the morning. To alleviate the queue spillback, the following is recommended:

1. Stripe the existing westbound through/right lane to a left/through/right lane. The addition of a second left turn lane will improve operations at the intersection. Two receiving lanes are striped on southbound Corral Hollow Drive to receive the dual turning lane traffic. The merge in the southbound direction is substandard, however, vehicles will find gaps. Some spillback could be expected into the intersection, and signal timing should be managed to minimize this occurrence. The overall benefit from adding the second westbound left turn lane will however improve the current deficient operations.
2. Modify the Middlefield Road median between Corral Hollow Road and Driveway 1 to a constant 4' width to maximize queue capacity.
3. Provide split phasing at the intersection of Corral Hollow and Middlefield Drive/Summit Drive for the westbound and eastbound approach

Two receiving lanes shall be striped on southbound Corral Hollow Drive to receive the dual turning lane traffic. The merge in the southbound direction is substandard, however, vehicles will find gaps. Some spillback could be expected into the intersection, and signal timing should be managed to minimize this

occurrence. The overall benefit from adding the second westbound left turn lane will however improve the current deficient operations.

Southbound and Northbound Approaches on Corral Hollow Road: Queues in the southbound direction of Corral Hollow Road spill back to Peony Drive from the Corral Hollow Road due to the lane merge. The project will add traffic in this travel direction in the morning and to alleviate the queue spillback, the following is recommended:

1. Stripe two southbound travel lanes from Peony Drive to the merge just before the rail tracks. The southbound right turn trap lane will be restriped at Summit Drive.
2. Stripe two northbound travel lanes from the project frontage to Peony Drive. The curb lane will then be a right turn trap lane at Peony Drive until Corral Hollow Road is widened further north. The merge distance in the southbound direction just before the rail tracks is substandard, however, vehicles will slow down and find gaps. The speed limit should be lowered to accommodate these movements to at least 10 mph less than what is currently posted. Enforcement should occur. Signing and striping should be implemented to exceed the CA MUTCD minimum recommendations for lane merges. Some spillback because of the merge could be expected, and signal timing should be managed to minimize this occurrence. The overall benefit from adding the additional capacity will however improve the current deficient operations.

Table 5 provides the 95th-percentile queue results for the mitigations listed above. With these improvements, the LOS for the signal remains acceptable, and the Synchro worksheets have been provided in the **Appendix**.

Table 5 – 95th-Percentile Queue Results (Mitigated)

#	Intersection	Movement /Approach	95 th Percentile Queue (ft)
			AM Peak Hour
1	Middlefield Dr & Waterstone Apartments/Project Driveway 1	NBL	3 vehicles (68 feet)
2	Corral Hollow Rd & Middlefield Dr/Summit Dr	WB	14 vehicles (328 feet)

8. Driveway Access Review

The Project is accessed by two driveways. Driveway #1 is located along Middlefield Drive across from the Waterstone Apartment Driveway. Driveway #2 is located along Corral Hollow Road. The driveways widths and spacing were reviewed for conformance with City of Tracy Design Standards (December 2008).

The following lists the design standards applicable to the Project site:

- Section 3.09(B) – The driveway width shall not be greater than 34 feet for commercial parcel and the maximum width of the driveway approach at the face of curb for commercial is 40 feet. The minimum width of a single driveway shall be 9 feet and the total width of commercial and industrial driveways shall not exceed 60% of the frontage
- Section 3.09(E) – Commercial driveways shall be at the beginning of the fully depressed sections between 33 and 50 feet apart.

- Section 3.09(F) – A minimum of 1.5 feet of full height curb shall be maintained between the property line and driveway transition

8.1 Driveway 1 Review

Driveway 1 is an existing 60-foot driveway that provides access to the Edgewood site. Vehicles are not allowed to use the existing driveway because the driveway leads to an empty lot. The Project proposes the following geometry at the driveway:

- Two inbound lanes
- One outbound shared through and left turn lane
- One outbound right turn lane

The left turn lane is shared with the through lane because the existing median vehicles prevents access to the Waterstone Apartments from the right turn lane.

It is recommended that the following changes be implemented for Driveway 1:

1. Add stop sign, limit line, and stop pavement markings.
2. Restripe to one incoming lane for the interim condition
3. The driveway will still be wider than the 34-foot commercial driveway maximum (City of Tracy Design Standard 3.09 (B)). This will require a design exception, if acceptable.
4. Convert driveway curb returns to driveway flares. The existing driveway may need to be reconstructed if it is not ADA-compliant.

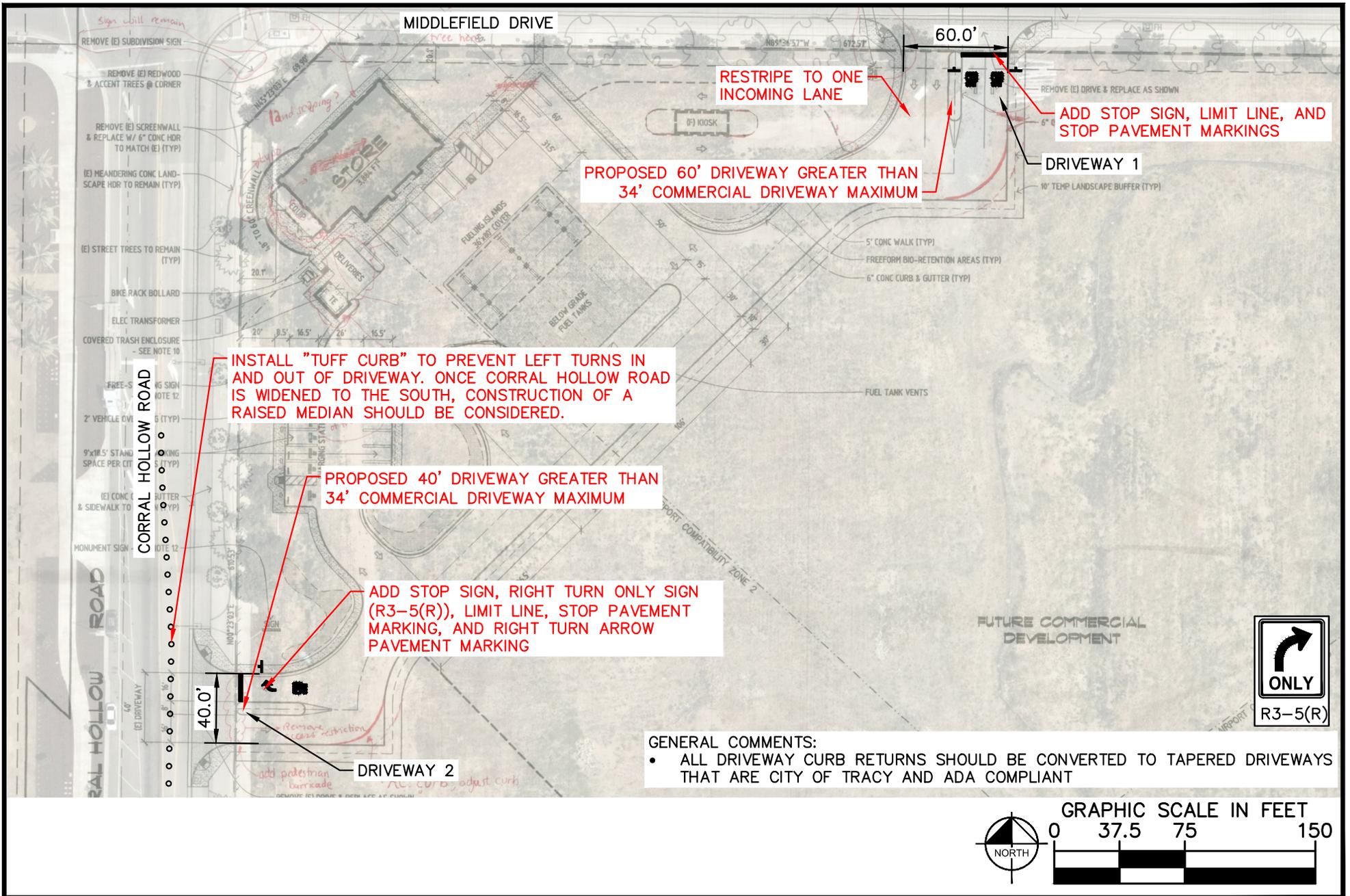
8.2 Driveway 2 Review

Driveway 2 is an existing 40-foot driveway that provides access to the Edgewood site. Vehicles are not allowed to use the existing driveway because the driveway leads to an empty lot. Driveway 2 is anticipated to be a Right In / Right Out (RIRO) driveway.

It is recommended that the following changes be implemented for Driveway 2:

1. Add a stop sign, right turn only sign (CAMUTCD Sign R3-5(R)), limit line, stop pavement markings, and right turn arrow pavement marking.
2. Add “tuff curb”, or similar product, in the Corral Hollow Road painted median to deter left turn movements in and out of the driveway.
3. The driveway is wider than the 34-foot commercial driveway maximum (City of Tracy Design Standard 3.09 (B)). This will require a design exception, if acceptable.
4. Convert driveway curb returns to driveway flares. The existing driveway may need to be reconstructed if it is not ADA-compliant.

Figure 11 illustrates the driveway analysis presented in this section of the report.



9. Internal Circulation Review

Site internal circulation was reviewed to determine if vehicles would be able to circulate adequately through the proposed site.

From this analysis, the following deficiencies were noted:

- There is no centerline striping to guide cars in the main drive aisle.
- The right-angle curbs located at Driveways 1 and 2 are inadequate and need to be redesigned.

9.2 Recommendations

The following summarizes the recommendations that should be implemented to improve internal circulation:

1. Install curbs at the Driveways 1 and 2 to remove the current right-angle curb in the site plan.
2. Add centerline striping in main drive aisle.

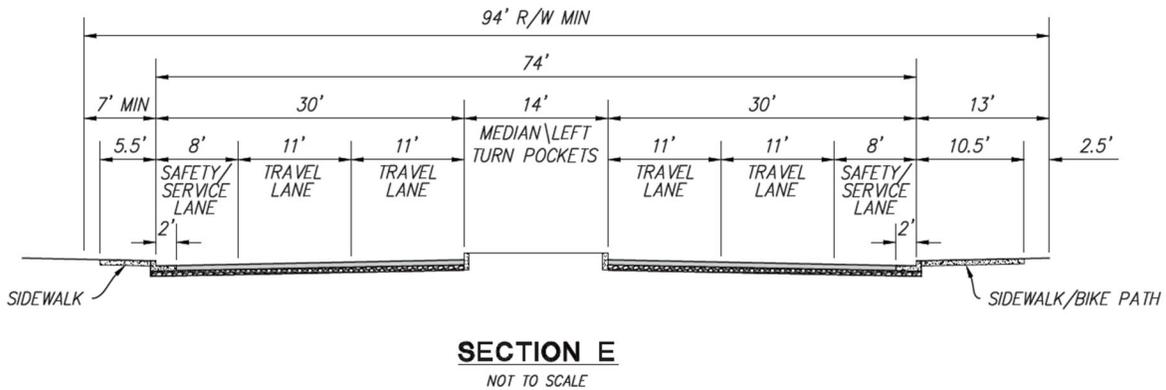
Figure 12 illustrates the topics discussed in this section of the report.

10. External Network Review

10.1 Corral Hollow Road

The external network was reviewed to determine if the Edgewood project conforms with the Corral Hollow Plan Line. (November 7, 2016). **Figure 13** provides the future cross section while **Figure 14** provides the plan view along the Edgewood frontage

Figure 13 – Proposed Corral Hollow Cross Section



The project frontage must conform with Section E and the following improvements are required at the intersection of Corral Hollow Road and Middlefield Drive/ Summit Drive:

1. A 12-foot northbound right turn pocket
2. A 6-foot northbound bike slot
3. Two 11-foot northbound through lanes

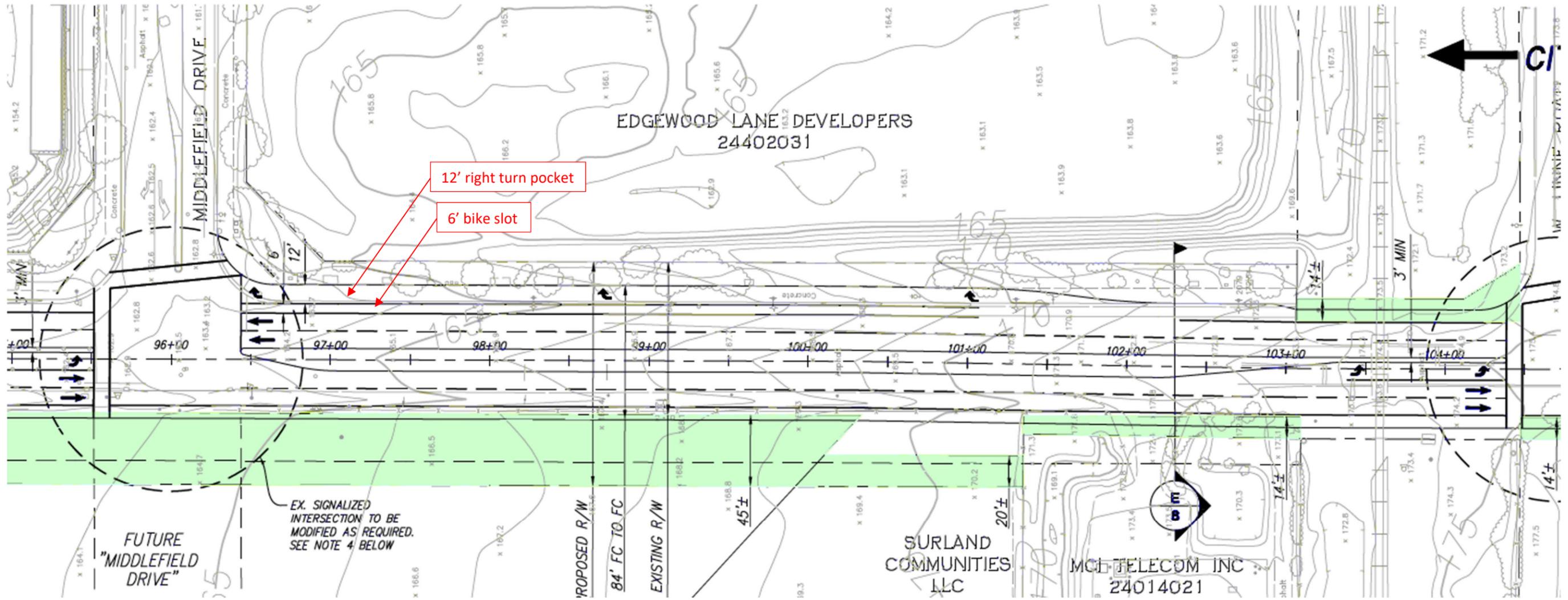
10.2 Middlefield Road

To mitigate queues at the Middlefield the following improvement is recommended:

1. Stripe the existing westbound through/right lane to a left/through/right lane. The addition of a second left turn lane will improve operations at the intersection.
2. Modify the Middlefield Road median between Corral Hollow Road and Driveway 1 to a constant 4' width to maximize queue capacity.

Figure 15 illustrates these improvements at the intersection. Refer to **Section 7** for more discussion on the queues that are anticipated at this intersection.

Figure 14 – Corral Hollow Plan Line

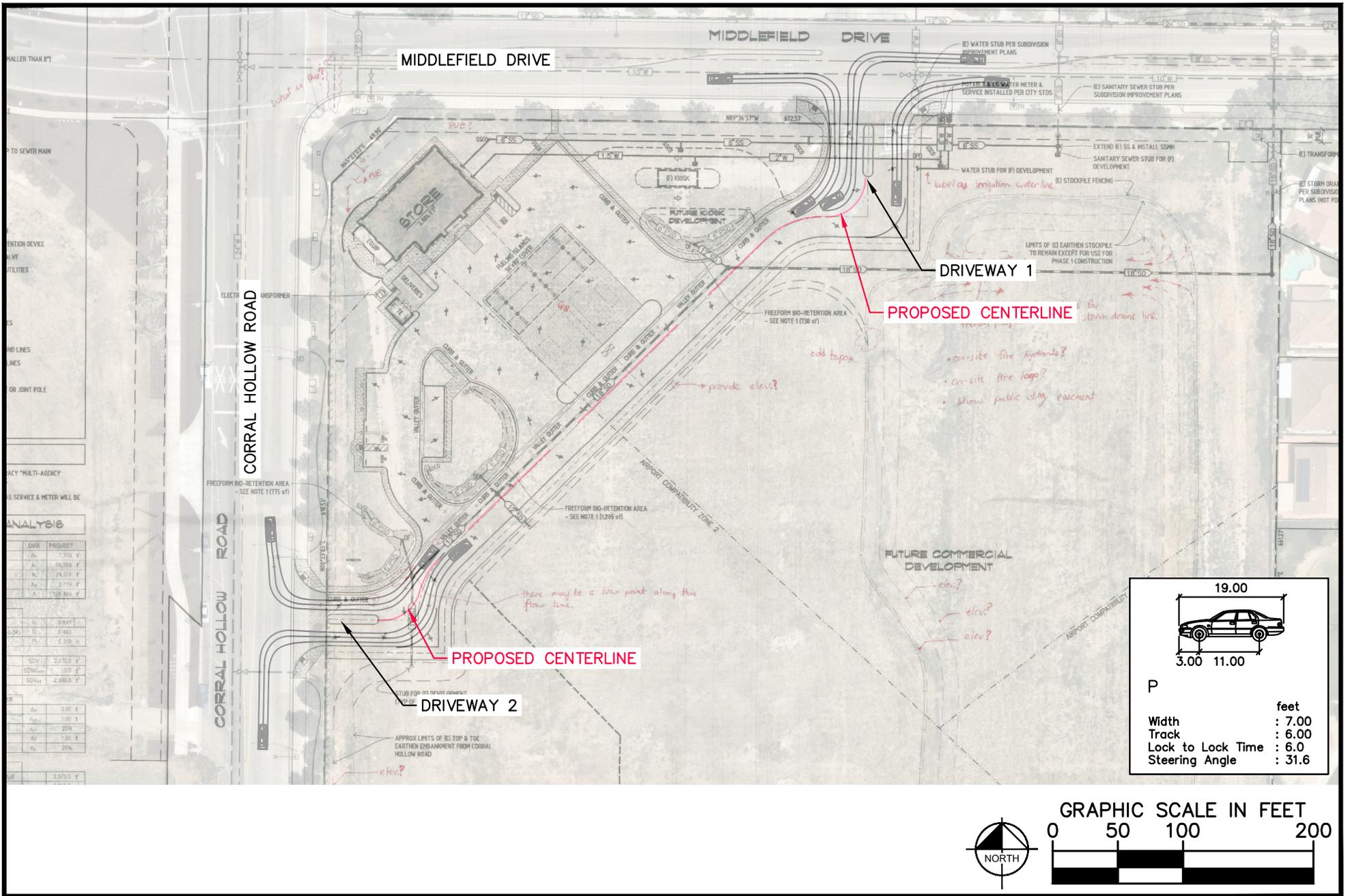


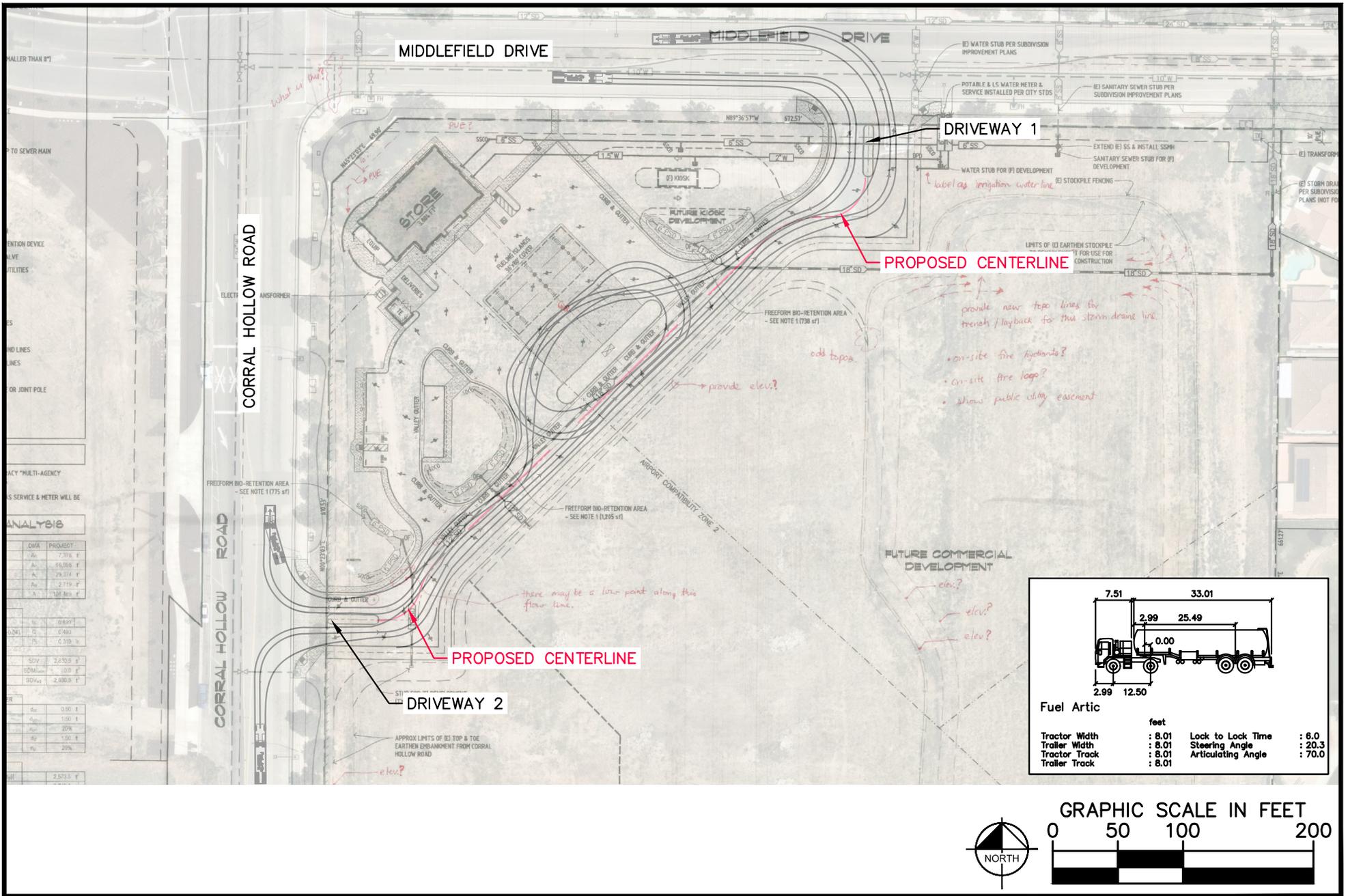
11. Turning Templates

Vehicle turning templates were completed for the following design vehicles:

- Passenger Car – American Association of State Highway Transportation Officials (AASHTO)
- Fuel Truck – Transoft Solutions AutoTurn 10
- Fire Truck – National Cooperation Highway Research Program (NCHRP 659)

It was determined that the design vehicles will be able to perform movements to/from the Project site. Passenger car, fuel truck, and fire truck turning templates are illustrated in **Figure 16**, **Figure 17**, **Figure 18**, respectively.





12. Conclusion

Table 6 summarizes and provides recommendations based on the analysis conducted in this report.

Table 6 – Summary Table

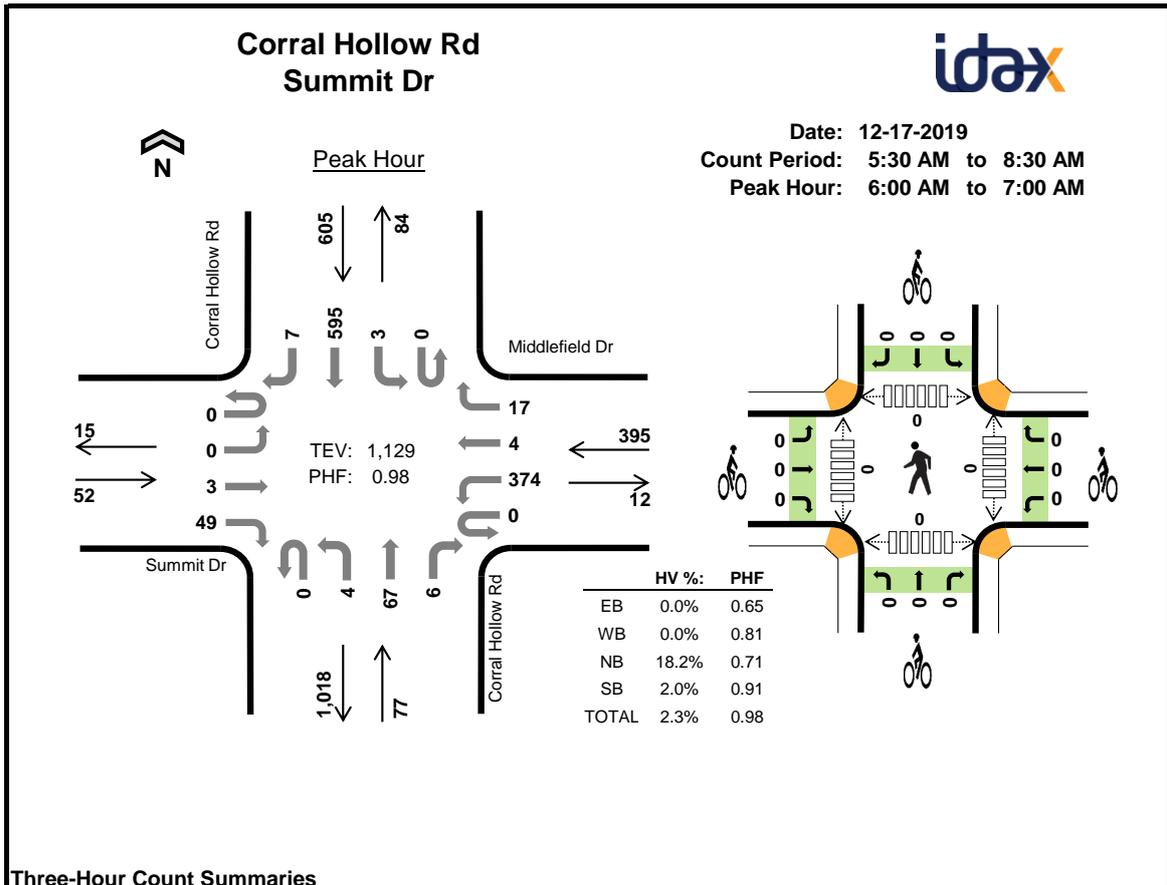
Location	Queuing Analysis (Section 7)	Driveway Access Review (Section 8)	Internal Circulation (Section 9)	External Network Review (Section 10)	Turning Templates (Section 11)	Recommendations
Coffee Kiosk	Inadequate	-	Inadequate	-	-	<ul style="list-style-type: none"> Redesign current coffee kiosk to provide the following: <ul style="list-style-type: none"> Order windows for both (2) approaches Queue space for 3 car lengths (25 feet each) between the order window and the pick-up window Queue space for 3 car lengths (25 feet each) at and before the order window
Driveway 1	Adequate	Changes Recommended	Changes Recommended	-	Adequate	<ul style="list-style-type: none"> Add stop sign, limit line, and stop pavement markings. Restripe to one incoming lane for the interim condition. The driveway will still be wider than the 34-foot commercial driveway maximum (City of Tracy Design Standard 3.09 (B)). This will require a design exception, if acceptable. Convert driveway curb returns to driveway flares. The existing driveway may need to be reconstructed if it is not ADA-compliant.
Driveway 2	-	Changes Recommended	Changes Recommended	Inadequate	Adequate	<ul style="list-style-type: none"> Add a stop sign, right turn only sign (CAMUTCD Sign R3-5(R)), limit line, stop pavement markings, and right turn arrow pavement marking. Add “tuff curb”, or similar product, in the Corral Hollow Road painted median to deter left turn movements in and out of the driveway. The driveway is wider than the 34-foot commercial driveway maximum (City of Tracy Design Standard 3.09 (B)). This will require a design exception, if acceptable. Convert driveway curb returns to driveway flares. The existing driveway may need to be reconstructed if it is not ADA-compliant. Conform to the Corral Hollow Plan Line – Section E (November 7, 2016) along Project frontage. Provide the following lane geometry at the intersection of Corral Hollow and Middlefield Drive/Summit Drive (in conformance with the Corral Hollow Plan Line) <ul style="list-style-type: none"> 12-foot northbound right turn pocket 6-foot northbound bike slot Two 11-foot northbound through lanes

Table 6 – Summary Table (Cont.)

Location	Queuing Analysis (Section 7)	Driveway Access Review (Section 8)	Internal Circulation (Section 9)	External Network Review (Section 10)	Turning Templates (Section 11)	Recommendations
Corral Hollow & Middlefield Intersection	Changes Recommended	-	-	Changes Recommended	-	<ul style="list-style-type: none"> • Stripe the existing westbound through/right lane to a left/through/right lane. The addition of a second left turn lane will improve operations at the intersection. • Modify the Middlefield Road median between Corral Hollow Road and Driveway 1 to a constant 4' width to maximize queue capacity. • Provide split phasing at the intersection of Corral Hollow Road and Middlefield Drive/Summit Drive for the westbound and eastbound approaches.
General Recommendations						<ul style="list-style-type: none"> • Add centerline striping in the main drive aisle

13. Appendix

A. Turning Movement Counts



Three-Hour Count Summaries

Interval Start	Summit Dr				Middlefield Dr				Corral Hollow Rd				Corral Hollow Rd				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Eastbound		Westbound		Northbound		Southbound		Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
6:00 AM	0	0	0	8	0	118	1	3	0	0	16	1	0	0	140	1	288	0	
6:15 AM	0	0	0	20	0	99	0	4	0	0	13	0	0	1	140	6	283	0	
6:30 AM	0	0	1	10	0	83	0	3	0	3	21	3	0	1	149	0	274	0	
6:45 AM	0	0	2	11	0	74	3	7	0	1	17	2	0	1	166	0	284	1,129	
Peak Hour	All	0	0	3	49	0	374	4	17	0	4	67	6	0	3	595	7	1,129	0
	HV	0	0	0	0	0	0	0	0	0	0	14	0	0	0	12	0	26	0
	HV%	-	-	0%	0%	-	0%	0%	0%	-	0%	21%	0%	-	0%	2%	0%	2%	0

Note: For all three-hour count summary, see next page.

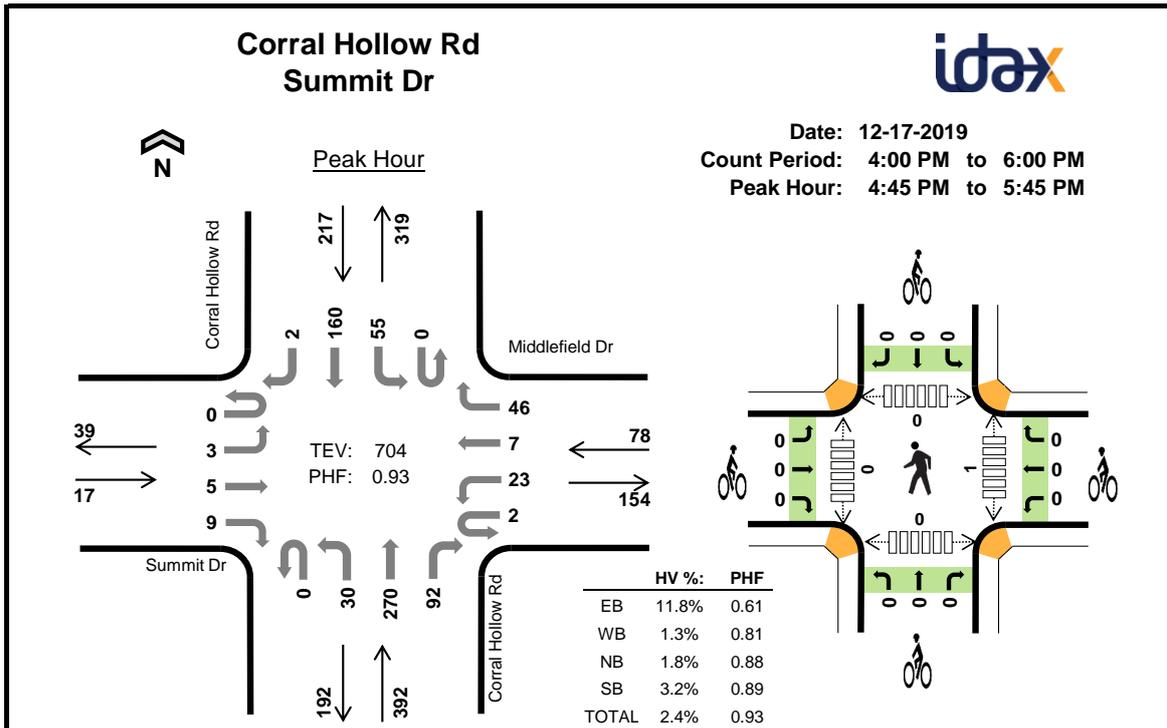
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
6:00 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	4	5	9	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	5	3	8	0	0	0	0	0	0	0	0	0	0
Peak Hour	0	0	14	12	26	0	0	0	0	0	0	0	0	0	0

Three-Hour Count Summaries																			
Interval Start	Summit Dr				Middlefield Dr				Corral Hollow Rd				Corral Hollow Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
5:30 AM	0	0	1	11	0	82	0	0	0	1	12	1	0	0	170	0	278	0	
5:45 AM	0	0	4	5	0	77	0	2	0	1	7	0	0	1	162	0	259	0	
6:00 AM	0	0	0	8	0	118	1	3	0	0	16	1	0	0	140	1	288	0	
6:15 AM	0	0	0	20	0	99	0	4	0	0	13	0	0	1	140	6	283	1,108	
6:30 AM	0	0	1	10	0	83	0	3	0	3	21	3	0	1	149	0	274	1,104	
6:45 AM	0	0	2	11	0	74	3	7	0	1	17	2	0	1	166	0	284	1,129	
7:00 AM	0	0	1	12	0	74	2	3	0	4	27	4	0	2	143	1	273	1,114	
7:15 AM	0	0	3	11	0	73	2	10	0	3	18	3	0	2	116	2	243	1,074	
7:30 AM	0	0	2	18	0	60	4	14	0	3	16	5	0	4	103	3	232	1,032	
7:45 AM	0	0	5	29	0	63	0	17	0	4	29	6	0	17	113	0	283	1,031	
8:00 AM	0	0	5	12	1	48	3	7	0	6	32	4	0	8	98	2	226	984	
8:15 AM	0	0	2	6	0	33	4	15	0	5	26	2	0	19	127	1	240	981	
Count Total	0	0	26	153	1	884	19	85	0	31	234	31	0	56	1,627	16	3,163	0	
Peak Hour	All	0	0	3	49	0	374	4	17	0	4	67	6	0	3	595	7	1,129	0
	HV	0	0	0	0	0	0	0	0	0	0	14	0	0	0	12	0	26	0
	HV%	-	-	0%	0%	-	0%	0%	0%	-	0%	21%	0%	-	0%	2%	0%	2%	0
<i>Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.</i>																			
Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)								
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total				
5:30 AM	0	0	2	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 AM	1	0	1	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 AM	0	0	3	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 AM	0	0	4	5	9	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	5	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 AM	0	0	14	3	17	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	10	14	24	1	0	0	0	1	0	0	0	0	0	0	0	0	
7:30 AM	1	3	2	4	10	0	0	0	0	0	0	0	2	0	2	0	2	0	
7:45 AM	0	0	9	4	13	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	7	10	17	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	1	15	16	0	0	0	0	0	0	0	1	0	0	0	1	0	
Count Total	2	3	60	67	132	1	0	0	0	1	0	1	2	0	3	0	3	0	
Peak Hour	0	0	14	12	26	0	0	0	0	0	0	0	0	0	0	0	0	0	

Three-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Summit Dr				Middlefield Dr				Corral Hollow Rd				Corral Hollow Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
5:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	0	
5:45 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	2	0	4	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	
6:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0	7	18	
6:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	9	22	
6:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	8	26	
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	11	0	0	0	3	17	41	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	14	24	58	
7:30 AM	0	0	0	1	0	0	0	3	0	0	1	1	0	0	4	0	10	59	
7:45 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	4	0	13	64	
8:00 AM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	10	0	17	64	
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	15	0	16	56	
Count Total	0	0	1	1	0	0	0	3	0	4	55	1	0	0	67	0	132	0	
Peak Hour	0	0	0	0	0	0	0	0	0	0	14	0	0	0	12	0	26	0	

Three-Hour Count Summaries - Bikes																		
Interval Start	Summit Dr			Middlefield Dr			Corral Hollow Rd			Corral Hollow Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.



Two-Hour Count Summaries

Interval Start	Summit Dr				Middlefield Dr				Corral Hollow Rd				Corral Hollow Rd				15-min Total	Rolling One Hour	
	Eastbound		RT		Westbound		RT		Northbound		RT		Southbound		RT				
4:00 PM	0	0	0	6	0	7	0	10	0	8	58	17	0	12	43	0	161	0	
4:15 PM	0	2	0	0	0	10	2	10	0	6	71	20	0	8	39	1	169	0	
4:30 PM	0	0	0	1	0	4	1	5	0	9	60	29	0	8	48	0	165	0	
4:45 PM	0	0	1	6	0	7	0	8	0	8	57	21	0	15	45	1	169	664	
5:00 PM	0	2	1	0	1	3	0	11	0	7	68	14	0	13	39	0	159	662	
5:15 PM	0	0	2	0	1	6	6	11	0	8	82	21	0	10	39	0	186	679	
5:30 PM	0	1	1	3	0	7	1	16	0	7	63	36	0	17	37	1	190	704	
5:45 PM	0	0	0	1	0	2	0	8	0	10	59	18	0	24	36	0	158	693	
Count Total	0	5	5	17	2	46	10	79	0	63	518	176	0	107	326	3	1,357	0	
Peak Hour	All	0	3	5	9	2	23	7	46	0	30	270	92	0	55	160	2	704	0
	HV	0	0	0	2	0	0	0	1	0	0	7	0	0	0	7	0	17	0
	HV%	-	0%	0%	22%	0%	0%	0%	2%	-	0%	3%	0%	-	0%	4%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	1	1	2	0	1	0	0	1	0	0	0	0	0
4:15 PM	0	0	2	6	8	1	0	1	1	3	0	0	0	0	0
4:30 PM	0	0	3	5	8	0	0	0	0	0	0	0	0	0	0
4:45 PM	1	0	3	2	6	0	0	0	0	0	1	0	0	0	1
5:00 PM	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	1	4	6	0	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	1	1	0	0	0	0	0	0	0	1	0	1
Count Total	2	1	13	20	36	1	1	1	1	4	1	0	1	0	2
Peak Hour	2	1	7	7	17	0	0	0	0	0	1	0	0	0	1

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Summit Dr				Middlefield Dr				Corral Hollow Rd				Corral Hollow Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	6	0	8	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	4	0	8	0
4:45 PM	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	2	0	6	24
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	24
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	4	0	6	22
5:30 PM	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	3	17
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	12
Count Total	0	0	0	2	0	0	0	1	0	1	12	0	0	1	19	0	36	0	0
Peak Hour	0	0	0	2	0	0	0	1	0	0	7	0	0	0	7	0	17	0	0

Two-Hour Count Summaries - Bikes														
Interval Start	Summit Dr			Middlefield Dr			Corral Hollow Rd			Corral Hollow Rd			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0
4:15 PM	0	0	1	0	0	0	0	1	0	0	0	1	3	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	1	0	0	1	0	1	0	0	0	1	4	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Three-Hour Count Summaries																			
Interval Start	Middlefield Dr				Middlefield Dr				n/a				Waterstone Apt Dwy				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
5:30 AM	0	0	2	0	0	0	78	0	0	0	0	0	0	1	0	2	83	0	
5:45 AM	0	0	5	0	0	0	79	0	0	0	0	0	0	1	0	2	87	0	
6:00 AM	0	0	1	0	0	0	122	0	0	0	0	0	0	0	0	2	125	0	
6:15 AM	0	0	1	0	0	0	98	1	0	0	0	0	0	1	0	3	104	399	
6:30 AM	0	0	5	0	0	0	86	0	0	0	0	0	0	0	0	1	92	408	
6:45 AM	1	0	4	0	0	0	80	1	0	0	0	0	0	1	0	1	88	409	
7:00 AM	0	1	6	0	0	0	80	1	0	0	0	0	0	0	0	1	89	373	
7:15 AM	0	0	8	0	0	0	81	1	0	0	0	0	0	3	0	2	95	364	
7:30 AM	0	0	11	0	0	0	75	0	0	0	0	0	0	6	0	6	98	370	
7:45 AM	0	0	27	0	0	0	75	5	0	0	0	0	0	7	0	3	117	399	
8:00 AM	1	0	17	0	0	0	56	1	0	0	0	0	0	8	0	3	86	396	
8:15 AM	0	0	24	0	1	0	50	4	0	0	0	0	0	0	0	2	81	382	
Count Total	2	1	111	0	1	0	960	14	0	0	0	0	0	28	0	28	1,145	0	
Peak Hour	All	1	0	11	0	0	0	386	2	0	0	0	0	0	2	0	7	409	0
	HV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	HV%	0%	-	0%	-	-	-	0%	0%	-	-	-	-	-	0%	-	0%	0%	0

Note: Three-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0
7:30 AM	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	2	3	0	1	6	1	0	0	0	1	0	0	0	1	1
Peak Hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Three-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Middlefield Dr				Middlefield Dr				n/a				Waterstone Apt Dwy				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	
7:30 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	4	5	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Count Total	0	0	2	0	0	0	3	0	0	0	0	0	1	0	0	6	0	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

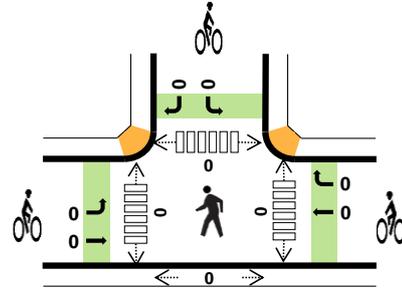
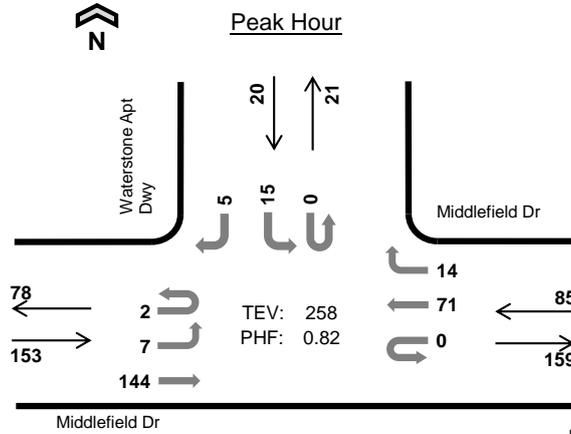
Three-Hour Count Summaries - Bikes														
Interval Start	Middlefield Dr			Middlefield Dr			n/a			Waterstone Apt Dwy			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
5:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	1	0	0	0	0	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Waterstone Apt Dwy Middlefield Dr



Date: 12-17-2019
 Count Period: 4:00 PM to 6:00 PM
 Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	0.0%	0.72
WB	2.4%	0.92
NB	-	-
SB	15.0%	0.50
TOTAL	1.9%	0.82

Two-Hour Count Summaries

Interval Start	Middlefield Dr Eastbound				Middlefield Dr Westbound				n/a Northbound				Waterstone Apt Dwy Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
	4:00 PM	0	3	24	0	0	0	15	1	0	0	0	0	0	2	0			2
4:15 PM	1	1	27	0	0	0	21	4	0	0	0	0	0	1	0	1	56	0	
4:30 PM	0	4	34	0	0	0	7	6	0	0	0	0	0	2	0	2	55	0	
4:45 PM	0	2	33	0	0	0	13	4	0	0	0	0	0	0	0	2	54	212	
5:00 PM	0	1	26	0	0	0	16	7	0	0	0	0	0	4	0	0	54	219	
5:15 PM	1	1	36	0	0	0	21	2	0	0	0	0	0	9	0	1	71	234	
5:30 PM	1	3	49	0	0	0	21	1	0	0	0	0	0	2	0	2	79	258	
5:45 PM	0	2	39	0	0	0	8	1	0	0	0	0	0	0	0	2	52	256	
Count Total	3	17	268	0	0	0	122	26	0	0	0	0	0	20	0	12	468	0	
Peak Hour	All	2	7	144	0	0	0	71	14	0	0	0	0	0	15	0	5	258	0
	HV	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	1	5	0
	HV%	0%	0%	0%	-	-	-	0%	14%	-	-	-	-	-	13%	-	20%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	2	0	1	3	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Count Total	1	2	0	3	6	0	1	0	0	1	0	0	3	0	3
Peak Hr	0	2	0	3	5	0	0	0	0	0	0	0	0	0	0

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Middlefield Dr				Middlefield Dr				n/a				Waterstone Apt Dwy				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	3	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	6
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Count Total	0	1	0	0	0	0	0	2	0	0	0	0	0	2	0	1	6	0
Peak Hour	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	1	5	0
Two-Hour Count Summaries - Bikes																		
Interval Start	Middlefield Dr			Middlefield Dr			n/a			Waterstone Apt Dwy			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<i>Note: U-Turn volumes for bikes are included in Left-Turn, if any.</i>																		

B. Existing Synchro Outputs

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↔	↑	↔		↔	
Traffic Vol, veh/h	1	11	386	2	2	7
Future Vol, veh/h	1	11	386	2	2	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	13	471	2	2	9

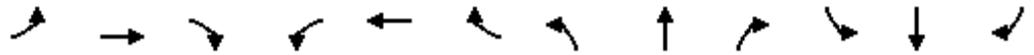
Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	473	0	-	0	487 472
Stage 1	-	-	-	-	472 -
Stage 2	-	-	-	-	15 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1099	-	-	-	543 596
Stage 1	-	-	-	-	632 -
Stage 2	-	-	-	-	1013 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1099	-	-	-	542 596
Mov Cap-2 Maneuver	-	-	-	-	542 -
Stage 1	-	-	-	-	631 -
Stage 2	-	-	-	-	1013 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1099	-	-	-	583
HCM Lane V/C Ratio	0.001	-	-	-	0.019
HCM Control Delay (s)	8.3	-	-	-	11.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Edgewood Commercial
2: Corral Hollow Rd & Summit Dr/Middlefield Dr

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3	49	374	4	17	4	67	6	3	595	7
Future Volume (veh/h)	0	3	49	374	4	17	4	67	6	3	595	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1589	1589	1900	1870	1900
Adj Flow Rate, veh/h	0	3	54	416	4	19	4	74	7	3	661	8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	21	21	0	2	0
Cap, veh/h	2	9	155	461	115	547	11	586	55	9	796	681
Arrive On Green	0.00	0.10	0.10	0.25	0.40	0.40	0.01	0.41	0.41	0.00	0.43	0.43
Sat Flow, veh/h	1810	83	1502	1810	286	1359	1810	1428	135	1810	1870	1601
Grp Volume(v), veh/h	0	0	57	416	0	23	4	0	81	3	661	8
Grp Sat Flow(s),veh/h/ln	1810	0	1586	1810	0	1645	1810	0	1563	1810	1870	1601
Q Serve(g_s), s	0.0	0.0	3.0	20.0	0.0	0.8	0.2	0.0	2.9	0.1	28.2	0.3
Cycle Q Clear(g_c), s	0.0	0.0	3.0	20.0	0.0	0.8	0.2	0.0	2.9	0.1	28.2	0.3
Prop In Lane	1.00		0.95	1.00		0.83	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	2	0	164	461	0	662	11	0	642	9	796	681
V/C Ratio(X)	0.00	0.00	0.35	0.90	0.00	0.03	0.35	0.00	0.13	0.34	0.83	0.01
Avail Cap(c_a), veh/h	604	0	1022	604	0	1097	604	0	1256	604	1461	1251
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	37.5	32.4	0.0	16.3	44.5	0.0	16.5	44.6	22.9	14.9
Incr Delay (d2), s/veh	0.0	0.0	1.3	14.1	0.0	0.0	17.1	0.0	0.1	21.8	3.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.2	10.3	0.0	0.3	0.1	0.0	1.0	0.1	12.4	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	38.7	46.5	0.0	16.3	61.6	0.0	16.6	66.4	26.2	14.9
LnGrp LOS	A	A	D	D	A	B	E	A	B	E	C	B
Approach Vol, veh/h		57			439			85			672	
Approach Delay, s/veh		38.7			44.9			18.7			26.2	
Approach LOS		D			D			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	42.7	26.9	14.4	4.6	44.0	0.0	41.2				
Change Period (Y+Rc), s	5.5	5.8	4.0	5.1	4.0	5.8	4.0	5.1				
Max Green Setting (Gmax), s	30.0	72.2	30.0	57.9	30.0	70.2	30.0	59.9				
Max Q Clear Time (g_c+I1), s	2.1	4.9	22.0	5.0	2.2	30.2	0.0	2.8				
Green Ext Time (p_c), s	0.0	0.7	0.9	0.4	0.0	8.0	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			32.8									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	9	144	71	14	15	5
Future Vol, veh/h	9	144	71	14	15	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	60	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	14	13	20
Mvmt Flow	11	176	87	17	18	6

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	104	0	-	0	294 96
Stage 1	-	-	-	-	96 -
Stage 2	-	-	-	-	198 -
Critical Hdwy	4.1	-	-	-	6.53 6.4
Critical Hdwy Stg 1	-	-	-	-	5.53 -
Critical Hdwy Stg 2	-	-	-	-	5.53 -
Follow-up Hdwy	2.2	-	-	-	3.617 3.48
Pot Cap-1 Maneuver	1500	-	-	-	674 913
Stage 1	-	-	-	-	901 -
Stage 2	-	-	-	-	810 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1500	-	-	-	669 913
Mov Cap-2 Maneuver	-	-	-	-	669 -
Stage 1	-	-	-	-	895 -
Stage 2	-	-	-	-	810 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.2
HCM LOS			B

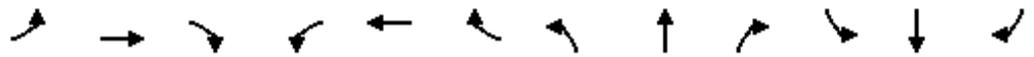
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1500	-	-	-	717
HCM Lane V/C Ratio	0.007	-	-	-	0.034
HCM Control Delay (s)	7.4	-	-	-	10.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Edgewood Commercial

2:

Existing

Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	5	9	25	7	46	30	270	92	55	160	2
Future Volume (veh/h)	3	5	9	25	7	46	30	270	92	55	160	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1856	1856	1900	1841	1900
Adj Flow Rate, veh/h	3	6	10	28	8	51	33	300	102	61	178	2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	3	3	0	4	0
Cap, veh/h	9	84	140	70	37	234	80	450	153	125	730	634
Arrive On Green	0.00	0.13	0.13	0.04	0.17	0.17	0.04	0.34	0.34	0.07	0.40	0.40
Sat Flow, veh/h	1810	633	1055	1810	220	1402	1810	1321	449	1810	1841	1600
Grp Volume(v), veh/h	3	0	16	28	0	59	33	0	402	61	178	2
Grp Sat Flow(s),veh/h/ln	1810	0	1688	1810	0	1622	1810	0	1771	1810	1841	1600
Q Serve(g_s), s	0.1	0.0	0.4	0.7	0.0	1.5	0.9	0.0	9.4	1.6	3.1	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.4	0.7	0.0	1.5	0.9	0.0	9.4	1.6	3.1	0.0
Prop In Lane	1.00		0.63	1.00		0.86	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	9	0	224	70	0	270	80	0	603	125	730	634
V/C Ratio(X)	0.34	0.00	0.07	0.40	0.00	0.22	0.41	0.00	0.67	0.49	0.24	0.00
Avail Cap(c_a), veh/h	1114	0	2005	1114	0	1994	1114	0	2623	1114	2651	2305
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	18.5	22.9	0.0	17.6	22.7	0.0	13.7	21.8	9.8	8.9
Incr Delay (d2), s/veh	21.0	0.0	0.1	3.6	0.0	0.4	3.3	0.0	1.8	2.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.2	0.4	0.0	0.5	0.4	0.0	3.5	0.7	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	0.0	18.6	26.5	0.0	18.0	26.0	0.0	15.5	24.8	10.1	8.9
LnGrp LOS	D	A	B	C	A	B	C	A	B	C	B	A
Approach Vol, veh/h		19			87			435			241	
Approach Delay, s/veh		22.8			20.7			16.3			13.8	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.9	22.4	5.9	11.6	6.2	25.1	4.2	13.2				
Change Period (Y+Rc), s	5.5	5.8	4.0	5.1	4.0	5.8	4.0	5.1				
Max Green Setting (Gmax), s	30.0	72.2	30.0	57.9	30.0	70.2	30.0	59.9				
Max Q Clear Time (g_c+I1), s	3.6	11.4	2.7	2.4	2.9	5.1	2.1	3.5				
Green Ext Time (p_c), s	0.1	4.4	0.0	0.1	0.1	1.7	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay				16.2								
HCM 6th LOS				B								

C. Background Plus Project Synchro Outputs

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Traffic Vol, veh/h	1	11	81	47	352	2	117	0	2	2	2	6
Future Vol, veh/h	1	11	81	47	352	2	117	0	2	2	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	50	-	-	120	-	-	-	-	0	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	100	100	100	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	0	0	0	2	2	2	2	2	2
Mvmt Flow	1	12	90	47	352	2	130	0	2	2	2	7

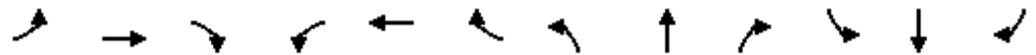
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	354	0	0	102	0	0	511	507	57	507	551	353
Stage 1	-	-	-	-	-	-	59	59	-	447	447	-
Stage 2	-	-	-	-	-	-	452	448	-	60	104	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1205	-	-	1503	-	-	473	468	1009	476	442	691
Stage 1	-	-	-	-	-	-	953	846	-	591	573	-
Stage 2	-	-	-	-	-	-	587	573	-	951	809	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1205	-	-	1503	-	-	455	453	1009	463	428	691
Mov Cap-2 Maneuver	-	-	-	-	-	-	455	453	-	463	428	-
Stage 1	-	-	-	-	-	-	952	845	-	590	555	-
Stage 2	-	-	-	-	-	-	561	555	-	948	808	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.9			15.9			11.5		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	455	1009	1205	-	-	1503	-	-	445	691
HCM Lane V/C Ratio	0.286	0.002	0.001	-	-	0.031	-	-	0.01	0.01
HCM Control Delay (s)	16	8.6	8	-	-	7.5	-	-	13.2	10.3
HCM Lane LOS	C	A	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	1.2	0	0	-	-	0.1	-	-	0	0

Edgewood Commercial
2: Corral Hollow & Summit Dr/Middlefield Dr

Background Plus Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑	↗
Traffic Volume (veh/h)	0	9	44	455	5	17	12	72	8	76	545	6
Future Volume (veh/h)	0	9	44	455	5	17	12	72	8	76	545	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1824	1900	1900	1824	1900	1589	1900	1900	1870	1900
Adj Flow Rate, veh/h	0	10	49	506	6	19	13	80	9	84	606	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	21	0	0	2	0
Cap, veh/h	2	28	137	539	177	559	33	957	506	124	716	612
Arrive On Green	0.00	0.10	0.10	0.30	0.44	0.44	0.02	0.32	0.32	0.07	0.38	0.38
Sat Flow, veh/h	1810	277	1355	1810	400	1267	1810	3019	1597	1810	1870	1600
Grp Volume(v), veh/h	0	0	59	506	0	25	13	80	9	84	606	7
Grp Sat Flow(s),veh/h/ln	1810	0	1632	1810	0	1667	1810	1509	1597	1810	1870	1600
Q Serve(g_s), s	0.0	0.0	3.2	25.8	0.0	0.8	0.7	1.8	0.4	4.3	28.0	0.3
Cycle Q Clear(g_c), s	0.0	0.0	3.2	25.8	0.0	0.8	0.7	1.8	0.4	4.3	28.0	0.3
Prop In Lane	1.00		0.83	1.00		0.76	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	2	0	165	539	0	736	33	957	506	124	716	612
V/C Ratio(X)	0.00	0.00	0.36	0.94	0.00	0.03	0.39	0.08	0.02	0.68	0.85	0.01
Avail Cap(c_a), veh/h	573	0	997	573	0	1054	573	2300	1217	573	1386	1185
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	39.7	32.4	0.0	15.0	46.0	22.7	22.2	43.1	26.7	18.1
Incr Delay (d2), s/veh	0.0	0.0	1.3	22.7	0.0	0.0	7.3	0.1	0.0	6.4	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.3	14.2	0.0	0.3	0.4	0.6	0.1	2.1	12.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	41.0	55.1	0.0	15.0	53.3	22.8	22.2	49.5	30.7	18.1
LnGrp LOS	A	A	D	E	A	B	D	C	C	D	C	B
Approach Vol, veh/h		59			531			102			697	
Approach Delay, s/veh		41.0			53.3			26.6			32.9	
Approach LOS		D			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.0	35.8	32.2	14.7	5.7	42.1	0.0	46.9				
Change Period (Y+Rc), s	5.5	5.8	4.0	5.1	4.0	5.8	4.0	5.1				
Max Green Setting (Gmax), s	30.0	72.2	30.0	57.9	30.0	70.2	30.0	59.9				
Max Q Clear Time (g_c+I1), s	6.3	3.8	27.8	5.2	2.7	30.0	0.0	2.8				
Green Ext Time (p_c), s	0.2	0.8	0.4	0.4	0.0	6.2	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay			40.5									
HCM 6th LOS			D									

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↘ ↙ ↘				↗ ↘
Traffic Vol, veh/h	0	17	75	11	0	1052
Future Vol, veh/h	0	17	75	11	0	1052
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	19	83	12	0	1169

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	48	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	857	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	857	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	857
HCM Lane V/C Ratio	-	-	0.022
HCM Control Delay (s)	-	-	9.3
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.1

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↶	↷	↶	↷	
Traffic Vol, veh/h	7	150	34	10	70	13	39	2	6	15	1	4
Future Vol, veh/h	7	150	34	10	70	13	39	2	6	15	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	60	-	-	60	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	100	100	100	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	0	0	0	2	2	2	2	2	2
Mvmt Flow	8	167	38	10	70	13	43	2	7	17	1	4

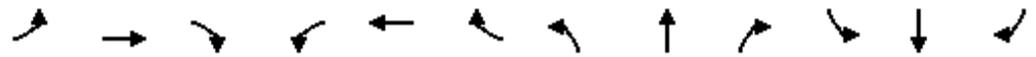
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	83	0	0	205	0	0	301	305	186	304	318	77
Stage 1	-	-	-	-	-	-	202	202	-	97	97	-
Stage 2	-	-	-	-	-	-	99	103	-	207	221	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1514	-	-	1378	-	-	651	608	856	648	598	984
Stage 1	-	-	-	-	-	-	800	734	-	910	815	-
Stage 2	-	-	-	-	-	-	907	810	-	795	720	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1514	-	-	1378	-	-	641	601	856	635	591	984
Mov Cap-2 Maneuver	-	-	-	-	-	-	641	601	-	635	591	-
Stage 1	-	-	-	-	-	-	796	730	-	905	809	-
Stage 2	-	-	-	-	-	-	895	804	-	782	716	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			10.9			10.4		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	639	856	1514	-	-	1378	-	-	635	868
HCM Lane V/C Ratio	0.071	0.008	0.005	-	-	0.007	-	-	0.026	0.006
HCM Control Delay (s)	11.1	9.2	7.4	-	-	7.6	-	-	10.8	9.2
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	0	0	-	-	0	-	-	0.1	0

Edgewood Commercial
2: Corral Hollow & Summit Dr/Middlefield Dr

Background Plus Project
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↑↑	↗	↖	↑	↗
Traffic Volume (veh/h)	3	6	8	55	8	54	31	289	103	81	148	1
Future Volume (veh/h)	3	6	8	55	8	54	31	289	103	81	148	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1824	1900	1900	1824	1900	1856	1900	1900	1841	1900
Adj Flow Rate, veh/h	3	7	9	61	9	60	34	321	114	90	164	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	3	0	0	4	0
Cap, veh/h	146	106	136	184	34	229	82	799	361	215	608	528
Arrive On Green	0.08	0.14	0.14	0.10	0.16	0.16	0.05	0.23	0.23	0.12	0.33	0.33
Sat Flow, veh/h	1810	750	964	1810	213	1417	1810	3526	1592	1810	1841	1598
Grp Volume(v), veh/h	3	0	16	61	0	69	34	321	114	90	164	1
Grp Sat Flow(s),veh/h/ln	1810	0	1714	1810	0	1629	1810	1763	1592	1810	1841	1598
Q Serve(g_s), s	0.1	0.0	0.4	1.6	0.0	1.8	0.9	3.8	3.0	2.3	3.2	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.4	1.6	0.0	1.8	0.9	3.8	3.0	2.3	3.2	0.0
Prop In Lane	1.00		0.56	1.00		0.87	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	146	0	242	184	0	264	82	799	361	215	608	528
V/C Ratio(X)	0.02	0.00	0.07	0.33	0.00	0.26	0.42	0.40	0.32	0.42	0.27	0.00
Avail Cap(c_a), veh/h	1096	0	2004	1096	0	1970	1096	5139	2321	1096	2609	2265
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	18.4	20.7	0.0	18.2	23.0	16.3	16.0	20.2	12.2	11.1
Incr Delay (d2), s/veh	0.1	0.0	0.1	1.0	0.0	0.5	3.3	0.3	0.5	1.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	0.6	0.0	0.6	0.4	1.3	1.0	0.9	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	0.0	18.6	21.7	0.0	18.7	26.3	16.6	16.5	21.5	12.4	11.1
LnGrp LOS	C	A	B	C	A	B	C	B	B	C	B	B
Approach Vol, veh/h		19			130			469			255	
Approach Delay, s/veh		18.9			20.1			17.3			15.6	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	17.0	9.0	12.1	6.2	22.2	8.0	13.1				
Change Period (Y+Rc), s	5.5	5.8	4.0	5.1	4.0	5.8	4.0	5.1				
Max Green Setting (Gmax), s	30.0	72.2	30.0	57.9	30.0	70.2	30.0	59.9				
Max Q Clear Time (g_c+I1), s	4.3	5.8	3.6	2.4	2.9	5.2	2.1	3.8				
Green Ext Time (p_c), s	0.2	2.4	0.1	0.1	0.1	0.9	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay				17.3								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↘ ↙ ↚				↗ ↘
Traffic Vol, veh/h	0	54	369	57	0	211
Future Vol, veh/h	0	54	369	57	0	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	60	410	63	0	234

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	237	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-
Pot Cap-1 Maneuver	0	651	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	651	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	651
HCM Lane V/C Ratio	-	-	0.092
HCM Control Delay (s)	-	-	11.1
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↖	↗
Traffic Vol, veh/h	1	11	81	47	352	2	117	0	2	2	2	6
Future Vol, veh/h	1	11	81	47	352	2	117	0	2	2	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	50	-	-	120	-	-	-	-	0	-	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	100	100	100	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	0	0	0	2	2	2	2	2	2
Mvmt Flow	1	12	90	47	352	2	130	0	2	2	2	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	354	0	0	102	0	0	511	507	57	507	551	353
Stage 1	-	-	-	-	-	-	59	59	-	447	447	-
Stage 2	-	-	-	-	-	-	452	448	-	60	104	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1205	-	-	1503	-	-	473	468	1009	476	442	691
Stage 1	-	-	-	-	-	-	953	846	-	591	573	-
Stage 2	-	-	-	-	-	-	587	573	-	951	809	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1205	-	-	1503	-	-	455	453	1009	463	428	691
Mov Cap-2 Maneuver	-	-	-	-	-	-	455	453	-	463	428	-
Stage 1	-	-	-	-	-	-	952	845	-	590	555	-
Stage 2	-	-	-	-	-	-	561	555	-	948	808	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.9			15.9			11.5		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	455	1009	1205	-	-	1503	-	-	445	691
HCM Lane V/C Ratio	0.286	0.002	0.001	-	-	0.031	-	-	0.01	0.01
HCM Control Delay (s)	16	8.6	8	-	-	7.5	-	-	13.2	10.3
HCM Lane LOS	C	A	A	-	-	A	-	-	B	B
HCM 95th %tile Q(veh)	1.2	0	0	-	-	0.1	-	-	0	0

Edgewood Commercial
2: Corral Hollow & Summit Dr/Middlefield Dr

Background Plus Project (MIT)
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	9	44	455	5	17	12	72	8	76	545	6
Future Volume (veh/h)	0	9	44	455	5	17	12	72	8	76	545	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1824	1900	1900	1824	1900	1589	1900	1900	1870	1900
Adj Flow Rate, veh/h	0	10	49	528	0	0	13	80	9	84	606	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	21	0	0	2	0
Cap, veh/h	164	25	123	749	393	0	35	923	488	157	738	631
Arrive On Green	0.00	0.09	0.09	0.21	0.00	0.00	0.02	0.31	0.31	0.09	0.39	0.39
Sat Flow, veh/h	1810	277	1355	3619	1900	0	1810	3019	1597	1810	1870	1600
Grp Volume(v), veh/h	0	0	59	528	0	0	13	80	9	84	606	7
Grp Sat Flow(s),veh/h/ln	1810	0	1632	1810	1900	0	1810	1509	1597	1810	1870	1600
Q Serve(g_s), s	0.0	0.0	2.4	9.4	0.0	0.0	0.5	1.3	0.3	3.1	20.1	0.2
Cycle Q Clear(g_c), s	0.0	0.0	2.4	9.4	0.0	0.0	0.5	1.3	0.3	3.1	20.1	0.2
Prop In Lane	1.00		0.83	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	0	148	749	393	0	35	923	488	157	738	631
V/C Ratio(X)	0.00	0.00	0.40	0.70	0.00	0.00	0.37	0.09	0.02	0.54	0.82	0.01
Avail Cap(c_a), veh/h	965	0	871	1931	1014	0	203	1580	836	344	1165	997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	29.7	25.5	0.0	0.0	33.6	17.2	16.8	30.3	18.8	12.8
Incr Delay (d2), s/veh	0.0	0.0	1.7	1.2	0.0	0.0	6.6	0.1	0.0	2.8	3.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.0	3.9	0.0	0.0	0.3	0.4	0.1	1.4	8.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.5	26.8	0.0	0.0	40.2	17.2	16.8	33.2	22.4	12.8
LnGrp LOS	A	A	C	C	A	A	D	B	B	C	C	B
Approach Vol, veh/h		59			528			102			697	
Approach Delay, s/veh		31.5			26.8			20.1			23.6	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	27.0		11.4	5.3	33.2		19.5				
Change Period (Y+Rc), s	5.5	5.8		5.1	4.0	5.8		5.1				
Max Green Setting (Gmax), s	13.2	36.3		37.0	7.8	43.2		37.0				
Max Q Clear Time (g_c+I1), s	5.1	3.3		4.4	2.5	22.1		11.4				
Green Ext Time (p_c), s	0.1	0.6		0.3	0.0	5.3		1.9				

Intersection Summary

HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↘ ↙ ↘				↗ ↘
Traffic Vol, veh/h	0	17	75	11	0	1052
Future Vol, veh/h	0	17	75	11	0	1052
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	19	83	12	0	1169

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	48	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	857	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	857	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	857
HCM Lane V/C Ratio	-	-	0.022
HCM Control Delay (s)	-	-	9.3
HCM Lane LOS	-	-	A
HCM 95th %tile Q(veh)	-	-	0.1

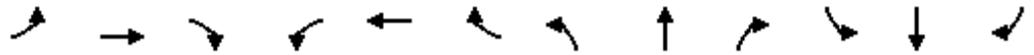
Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷			↶	↷	↶	↷	
Traffic Vol, veh/h	7	150	34	10	70	13	39	2	6	15	1	4
Future Vol, veh/h	7	150	34	10	70	13	39	2	6	15	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	60	-	-	60	-	-	-	-	0	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	100	100	100	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	0	0	0	2	2	2	2	2	2
Mvmt Flow	8	167	38	10	70	13	43	2	7	17	1	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	83	0	0	205	0	0	301	305	186	304	318	77
Stage 1	-	-	-	-	-	-	202	202	-	97	97	-
Stage 2	-	-	-	-	-	-	99	103	-	207	221	-
Critical Hdwy	4.12	-	-	4.1	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.2	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1514	-	-	1378	-	-	651	608	856	648	598	984
Stage 1	-	-	-	-	-	-	800	734	-	910	815	-
Stage 2	-	-	-	-	-	-	907	810	-	795	720	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1514	-	-	1378	-	-	641	601	856	635	591	984
Mov Cap-2 Maneuver	-	-	-	-	-	-	641	601	-	635	591	-
Stage 1	-	-	-	-	-	-	796	730	-	905	809	-
Stage 2	-	-	-	-	-	-	895	804	-	782	716	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.8			10.9			10.4		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	639	856	1514	-	-	1378	-	-	635	868
HCM Lane V/C Ratio	0.071	0.008	0.005	-	-	0.007	-	-	0.026	0.006
HCM Control Delay (s)	11.1	9.2	7.4	-	-	7.6	-	-	10.8	9.2
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	0	0	-	-	0	-	-	0.1	0

Edgewood Commercial
2: Corral Hollow & Summit Dr/Middlefield Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	6	8	55	8	54	31	289	103	81	148	1
Future Volume (veh/h)	3	6	8	55	8	54	31	289	103	81	148	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1824	1900	1900	1824	1900	1856	1900	1900	1841	1900
Adj Flow Rate, veh/h	3	7	9	61	9	60	34	321	114	90	164	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	3	0	0	4	0
Cap, veh/h	88	37	47	207	24	161	70	754	340	207	598	519
Arrive On Green	0.05	0.05	0.05	0.11	0.11	0.11	0.04	0.21	0.21	0.11	0.32	0.32
Sat Flow, veh/h	1810	749	963	1810	212	1412	1810	3526	1591	1810	1841	1598
Grp Volume(v), veh/h	3	0	16	61	0	69	34	321	114	90	164	1
Grp Sat Flow(s),veh/h/ln	1810	0	1712	1810	0	1624	1810	1763	1591	1810	1841	1598
Q Serve(g_s), s	0.1	0.0	0.4	1.3	0.0	1.7	0.8	3.3	2.6	2.0	2.8	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.4	1.3	0.0	1.7	0.8	3.3	2.6	2.0	2.8	0.0
Prop In Lane	1.00		0.56	1.00		0.87	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	0	84	207	0	186	70	754	340	207	598	519
V/C Ratio(X)	0.03	0.00	0.19	0.29	0.00	0.37	0.48	0.43	0.34	0.43	0.27	0.00
Avail Cap(c_a), veh/h	1584	0	1499	1584	0	1422	257	2837	1280	664	1960	1701
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	0.0	19.3	17.2	0.0	17.3	19.9	14.4	14.1	17.4	10.6	9.6
Incr Delay (d2), s/veh	0.2	0.0	1.1	0.8	0.0	1.2	5.0	0.4	0.6	1.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	0.5	0.0	0.6	0.4	1.0	0.7	0.7	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	0.0	20.4	17.9	0.0	18.5	24.9	14.7	14.6	18.9	10.8	9.6
LnGrp LOS	B	A	C	B	A	B	C	B	B	B	B	A
Approach Vol, veh/h		19			130			469			255	
Approach Delay, s/veh		20.2			18.3			15.5			13.7	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	14.8		7.2	5.6	19.5		9.9				
Change Period (Y+Rc), s	5.5	5.8		5.1	4.0	5.8		5.1				
Max Green Setting (Gmax), s	15.5	34.0		37.0	6.0	45.0		37.0				
Max Q Clear Time (g_c+I1), s	4.0	5.3		2.4	2.8	4.8		3.7				
Green Ext Time (p_c), s	0.1	2.3		0.1	0.0	0.9		0.5				

Intersection Summary

HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗ ↑↑↑	↗ ↑↑↑			↗ ↑↑
Traffic Vol, veh/h	0	54	369	57	0	211
Future Vol, veh/h	0	54	369	57	0	211
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	60	410	63	0	234

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	-	237	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	651	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	-	651	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	651
HCM Lane V/C Ratio	-	-	0.092
HCM Control Delay (s)	-	-	11.1
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection: 1: Project Driveway/Private Driveway & Middlefield Dr

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	8	4	29	29	91	26	31	34
Average Queue (ft)	0	0	5	1	44	3	4	6
95th Queue (ft)	5	2	22	13	75	17	19	27
Link Distance (ft)		384		736	267	267	268	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	50		120					50
Storage Blk Time (%)							0	0
Queuing Penalty (veh)							0	0

Intersection: 2: Corral Hollow & Summit Dr/Middlefield Dr

Movement	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	TR	L	TR	L	T	T	R	L	T	R
Maximum Queue (ft)	70	104	449	52	115	77	28	185	478	105
Average Queue (ft)	30	100	184	12	39	9	3	63	180	6
95th Queue (ft)	58	114	397	37	91	41	17	141	348	74
Link Distance (ft)	744		384		389	389	389		532	532
Upstream Blk Time (%)			2						0	0
Queuing Penalty (veh)			10						0	0
Storage Bay Dist (ft)		80		200				200		
Storage Blk Time (%)		35							6	
Queuing Penalty (veh)		8							5	

Intersection: 3: Corral Hollow & Project Driveway

Movement	WB
Directions Served	R
Maximum Queue (ft)	34
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	75
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 23

Intersection: 1: Project Driveway/Private Driveway & Middlefield Dr

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	L	TR	LT	R	LT	R
Maximum Queue (ft)	4	36	4	80	26	31	31
Average Queue (ft)	0	4	0	42	2	4	5
95th Queue (ft)	3	21	3	68	16	20	23
Link Distance (ft)			736	267	267	268	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	50	120					50
Storage Blk Time (%)						0	0
Queuing Penalty (veh)						0	0

Intersection: 2: Corral Hollow & Summit Dr/Middlefield Dr

Movement	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	TR	L	LTR	L	T	T	R	L	T	R
Maximum Queue (ft)	77	105	363	45	125	80	27	224	504	26
Average Queue (ft)	28	93	160	12	39	12	4	74	225	2
95th Queue (ft)	58	121	325	38	92	48	19	176	413	13
Link Distance (ft)	744		384		389	389	389		532	532
Upstream Blk Time (%)			1						1	
Queuing Penalty (veh)			3						0	
Storage Bay Dist (ft)		80		200				200		
Storage Blk Time (%)	0	25	5						12	
Queuing Penalty (veh)	0	64	12						10	

Intersection: 3: Corral Hollow & Project Driveway

Movement	WB	SB	SB
Directions Served	R	T	T
Maximum Queue (ft)	42	70	60
Average Queue (ft)	13	2	0
95th Queue (ft)	38	43	0
Link Distance (ft)	75	389	389
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

D. Coffee Queuing Worksheet

Intersection: 1: Project Driveway/Private Driveway & Middlefield Dr

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	TR	L	TR	LT	R	LT	R
Maximum Queue (ft)	14	69	327	222	73	26	35
Average Queue (ft)	0	8	36	71	6	3	6
95th Queue (ft)	3	43	199	174	58	18	28
Link Distance (ft)	396		736	267	267	268	
Upstream Blk Time (%)				4	0		
Queuing Penalty (veh)				0	0		
Storage Bay Dist (ft)		60					50
Storage Blk Time (%)	0	0	7			0	1
Queuing Penalty (veh)	0	0	3			0	0

Intersection: 2: Corral Hollow & Summit Dr/Middlefield Dr

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	TR	L	TR	L	T	R	L	T	R
Maximum Queue (ft)	70	110	466	51	99	28	224	375	104
Average Queue (ft)	24	108	318	12	35	4	70	165	5
95th Queue (ft)	54	116	519	40	78	19	157	307	54
Link Distance (ft)	744		396		389			532	
Upstream Blk Time (%)			17						
Queuing Penalty (veh)			81						
Storage Bay Dist (ft)		60		200		200	200		250
Storage Blk Time (%)	0	61	1					6	0
Queuing Penalty (veh)	0	14	3					5	0

Intersection: 3: Corral Hollow & Project Driveway

Movement	WB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	12
95th Queue (ft)	36
Link Distance (ft)	99
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 105

DRIVE-THROUGH QUEUING ANALYSIS

Project: Drive Thru Coffee Stand
Location: Edgewood Commercial, Tracy, CA

INPUT VALUES

Variable	Description	Value
A =	average number of vehicle arrivals per hour ¹	34
S =	service rate, number of vehicles per hour	88
I =	traffic intensity, utilization factor = A/S	0.38 <1
Q =	queue capacity (vehicles)	1

FORMULAS

Average Length of Queue		
$Avg Q = A^2 / S(S-A) = I^2 / 1-I$		0.24
Probability of Q Number of Vehicles in Queue		
$P(Q) = (I)^Q (1-I)$		23.66%
Probability of Queue Exceeding Q Vehicles		
$\sum_{Q=0}^{Q=a} P(Q) \geq 0.95$		14.78%

Source: Institute of Transportation Engineers (ITE)
 Transportation Planning Handbook, 3rd Edition

% of exact queue happening	Queue length (to max queue storage)	Total percent
61.56%	0	61.56%
23.66%	1	85.22%
9.10%	2	94.32%
3.50%	3	97.82%
1.34%	4	99.16%
0.52%	5	
0.20%	6	
0.08%	7	
0.03%	8	
0.01%	9	
0.00%	10	
0.00%	11	
0.00%	12	
0.00%	13	
0.00%	14	
0.00%	15	
0.00%	16	
0.00%	17	

Service Rates

sec/hr	3600			
1st veh	102			
rem sec	3498	Quick	Long	Average
svc time		52	428	40
veh srvd		68	9	88

RESOLUTION 2020 - 008

RECOMMENDING THAT THE CITY COUNCIL ADOPT AN ORDINANCE REZONING ASSESSOR'S PARCEL NUMBER 244-020-31, AN APPROXIMATELY 10.92-ACRE PARCEL, FROM PLANNED UNIT DEVELOPMENT (PUD) TO NEIGHBORHOOD SHOPPING (NS) – THE APPLICANT IS SCHACK AND COMPANY AND THE PROPERTY OWNERS ARE HARPREET SINGH & VARINDER PAL SINGH. APPLICATION NUMBER R19-0001

WHEREAS, The subject property has a General Plan designation of Commercial, is zoned Planned Unit Development (PUD) known as Edgewood, and is designated neighborhood shopping center in the Edgewood PUD, and

WHEREAS, Land use and development standards have not been established for the neighborhood shopping center designation, and

WHEREAS, On October 1, 2019, Schack and Company, on behalf of the property owners, submitted an application to remove the property from the Edgewood PUD and rezone it to Neighborhood Shopping Zone (NS), and

WHEREAS, Rezoning the property would allow for commercial land uses and development in conformance with the NS zone, and

WHEREAS, Section 15183 of the California Environmental Quality Act (CEQA) Guidelines provides that projects which are consistent with the development density established by existing Community Plan, General Plan, or Zoning policies for which an Environmental Impact Report was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which a peculiar to the project or its site;

WHEREAS, he proposal does not increase the development density established by the General Plan for which an Environmental Impact Report was certified, and there are no project-specific significant effects which are peculiar to the project or its site, and therefore, in accordance with CEQA Guidelines Section 15183, no further environmental assessment is required, and

WHEREAS, The Planning Commission held a public meeting to review and consider the rezone application on June 10, 2020;

NOW, THEREFORE BE IT RESOLVED, that the Planning Commission does hereby recommend that the City Council introduce an Ordinance (Exhibit 1 to this Resolution) rezoning Assessor's Parcel Number 244-020-31, an approximately 10.92-acre site located at the southeast corner of Corral Hollow Road and Middlefield Drive, from Planned Unit Development (PUD) to Neighborhood Shopping (NS).

* * * * *

The foregoing Resolution 2020 - 008 of the Planning Commission was adopted by the Planning Commission on the 10th day of June, 2020, by the following vote:

AYES:	COMMISSION MEMBERS:
NOES:	COMMISSION MEMBERS:
ABSENT:	COMMISSION MEMBERS:
ABSTAIN:	COMMISSION MEMBERS:

Chair

ATTEST:

Staff Liaison

ORDINANCE _____

AN ORDINANCE OF THE CITY OF TRACY REZONING ASSESSOR'S PARCEL NUMBER 244-020-31 FROM PLANNED UNIT DEVELOPMENT ZONE (PUD) TO NEIGHBORHOOD SHOPPING ZONE (NS)

WHEREAS, The subject property has a General Plan designation of Commercial, is zoned Planned Unit Development (PUD) known as Edgewood, and is designated neighborhood shopping center in the Edgewood PUD, and

WHEREAS, Land use and development standards have not been established for the neighborhood shopping center designation, and

WHEREAS, On October 1, 2019, Schack and Company, on behalf of the property owners, submitted an application to remove the property from the Edgewood PUD and rezone it to Neighborhood Shopping Zone (NS), and

WHEREAS, Rezoning the property would allow for commercial land uses and development in conformance with the NS zone, and

WHEREAS, Section 15183 of the California Environmental Quality Act (CEQA) Guidelines provides that projects which are consistent with the development density established by existing Community Plan, General Plan, or Zoning policies for which an Environmental Impact Report was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which a peculiar to the project or its site;

WHEREAS, The proposal does not increase the development density established by the General Plan for which an Environmental Impact Report was certified, and there are no project-specific significant effects which are peculiar to the project or its site and therefore, in accordance with California Environmental Quality Act Guidelines Section 15183, no further environmental assessment is required, and

WHEREAS, The Planning Commission held a public meeting to review and consider the rezone application on June 10, 2020 and recommended approval of the rezone, and

WHEREAS, The City Council held a public meeting to review and consider the rezone application on July 7, 2020;

NOW, THEREFORE, The City Council does ordains as follows:

SECTION 1: The zoning map of the City of Tracy is hereby amended to change the zoning on the following parcel from Planned Unit Development (PUD) to Neighborhood Shopping (NS):

Approximately 10.92 acre site located at the southeast corner of Corral Hollow Road and Middlefield Drive, Assessor's Parcel Number 244-020-31.

SECTION 2: This Ordinance shall take effect thirty (30) days after its final passage and adoption.

SECTION 3: This Ordinance shall be published once in the Tracy Press, a newspaper of general circulation, within fifteen (15) days from and after its final passage and adoption.

* * * * *

The foregoing Ordinance _____ was introduced at a regular meeting of the Tracy City Council on the 7th day of July, 2020, and finally adopted on the 21st day of July, 2020, by the following vote:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

MAYOR

ATTEST:

CITY CLERK

RESOLUTION 2020 - 009

APPROVAL OF A CONDITIONAL USE PERMIT FOR AN AUTOMOBILE SERVICE STATION WITH ASSOCIATED ELECTRIC VEHICLE CHARGING STATION AT ASSESSOR'S PARCEL NUMBER 244-020-31, AN APPROXIMATELY 10.92-ACRE SITE LOCATED AT THE SOUTHEAST CORNER OF CORRAL HOLLOW ROAD AND MIDDLEFIELD DRIVE - THE APPLICANT IS SCHACK AND COMPANY AND THE PROPERTY OWNERS ARE HARPREET SINGH & VARINDER PAL SINGH.
APPLICATION NUMBER CUP19-0013

WHEREAS, On December 2, 2019, the City received a Conditional Use Permit application for an automotive service station with associated electric vehicle charging station on an approximately 10.92-acre site located at the southeast corner of Corral Hollow Road and Middlefield Drive, which is associated with application for a Development Review Permit (D19-0031) and a Rezone of the site (R19-0001) received on October 1, 2019 (the "project"), and

WHEREAS, The project is consistent with the City of Tracy General Plan, in that the site is designated Commercial by the General Plan, and automotive service stations are among the allowed uses in the Commercial land use designation, and

WHEREAS, The subject property is proposed to be rezoned to the Neighborhood Shopping Zone (NS), which requires a Conditional Use Permit to operate an automotive service station, and

WHEREAS, In accordance with Tracy Municipal Code (TMC) Section 10.08.4250 et seq. Planning Commission is authorized to take final action on a Conditional Use Permit application, and

WHEREAS, The applicant requests that the CUP be valid for two years for the establishment of the use, as authorized in TMC Section 10.08.4360, such that it aligns with the associated Development Review Permit, should it be approved by the City Council, and

WHEREAS, Section 15183 of the California Environmental Quality Act (CEQA) Guidelines provides that projects which are consistent with the development density established by existing Community Plan, General Plan, or Zoning policies for which an Environmental Impact Report was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site;

WHEREAS, The project is consistent with the development density established by the General Plan for which an Environmental Impact Report was certified, and there are no project-specific significant effects which are peculiar to the project or its site, and therefore, in accordance with CEQA Guidelines Section 15183, no further environmental assessment is required, and

WHEREAS, The Planning Commission conducted a public hearing to consider the project on June 10, 2020;

NOW, THEREFORE, BE IT RESOLVED, The Planning Commission approves the Conditional Use Permit an automotive service station with associated electric vehicle charging station (CUP19-0013), subject to (1) the conditions contained in Exhibit 1, and (2) that it will not take effect until and unless the project site is rezoned to the Neighborhood Shopping Zone following City Council approval of the rezone request (R19-0001), and 3) that its expiration date for establishment of use be two years from the effective date of the use permit, based on the

following findings:

1. There are circumstances or conditions applicable to the land, structure, or use, which make the granting of a use permit necessary for the preservation and enjoyment of a substantial property right, because the proposed automobile service station with associated electrical charging station will provide a conveniently-located service to an area of the city that currently does not have such service offered.
2. The proposed location of the conditional use in accordance with the objectives and purposes of the zoning regulations and the proposed Neighborhood Shopping zoning (application number R19-0001), wherein Conditional Use Permit approval is required for the operation of an automobile service station and its accessory uses.
3. The proposed location of the use and the conditions under which it would be operated or maintained will not be detrimental to the public health, safety, or welfare or materially injurious to, or inharmonious with, properties or improvements in the vicinity, because the automobile service station will not only be complementary with nearby residential and future commercial uses, it will provide a convenience service to automobiles traveling to and from the I-580 freeway. Furthermore, the project is conditioned such that should any outdoor display of retail propane tanks or similar product occur, it shall be screened from general view, such as behind a screen wall.
4. The proposed use will comply with each of the applicable provisions of the zoning regulations and the proposed Neighborhood Shopping Zone. The project is consistent with City standards in all respects, including, but not limited to siting standards, off-street parking, landscaping, and building design.

* * * * *

The foregoing Resolution 2020 - 009 adopted by the Planning Commission on the 10th day of June, 2020, by the following vote:

AYES: COMMISSION MEMBERS:
 NOES: COMMISSION MEMBERS:
 ABSENT: COMMISSION MEMBERS:
 ABSTAIN: COMMISSION MEMBERS:
 ATTEST: COMMISSION MEMBERS:

CHAIR

STAFF LIAISON

City of Tracy
Conditions of Approval
Edgewood Service Station
Application Number CUP19-0013
June 10, 2020

A. General Provisions and Definitions.

A.1. General. These Conditions of Approval apply to:

The Project: Edgewood Service Station, Application No. CUP19-0013

The Property: The approximately 106,464 sf northwestern portion of an approximately 10.92-acre site located at the southeast corner of Corral Hollow Road and Middlefield Drive, Assessor's Parcel Number 244-020-31

A.2. Definitions.

- a. "Applicant" means any person, or other legal entity, defined as a "Developer."
- b. "City Engineer" means the City Engineer of the City of Tracy, or any other duly licensed Engineer designated by the City Manager, or the Development Services Director, or the City Engineer to perform the duties set forth herein.
- c. "City Regulations" means all written laws, rules, and policies established by the City, including those set forth in the City of Tracy General Plan, the Tracy Municipal Code, ordinances, resolutions, policies, procedures, and the City's Design Documents (including the Standard Plans, Standard Specifications, Design Standards, and relevant Public Facility Master Plans).
- d. "Development Services Director" means the Development Services Director of the City of Tracy, or any other person designated by the City Manager or the Development Services Director to perform the duties set forth herein.
- e. "Conditions of Approval" shall mean the conditions of approval applicable to the Project located at the Property. The Conditions of Approval shall specifically include all conditions set forth herein.
- f. "Developer" means any person, or other legal entity, who applies to the City to divide or cause to be divided real property within the Project boundaries, or who applies to the City to develop or improve any portion of the real property within the Project boundaries. The term "Developer" shall include all successors in interest.

A.3. Compliance with submitted plans. Except as otherwise modified herein, the project shall be constructed in substantial compliance with the plans received by the Development Services Department on May 20, 2020. This includes the site plan, civil plans, landscape plans, and building elevations, colors, and materials.

A.4. Payment of applicable fees. The applicant shall pay all applicable fees for the project, including, but not limited to, development impact fees, building permit fees, plan check

fees, grading permit fees, encroachment permit fees, inspection fees, school fees, or any other City or other agency fees or deposits that may be applicable to the project.

- A.5. Compliance with laws. The Developer shall comply with all laws (federal, state, and local) related to the development of real property within the Project, including, but not limited to:
- the Planning and Zoning Law (Government Code sections 65000, et seq.)
 - the California Environmental Quality Act (Public Resources Code sections 21000, et seq., "CEQA"), and
 - the Guidelines for California Environmental Quality Act (California Administrative Code, title 14, sections 1500, et seq., "CEQA Guidelines").
- A.6. Compliance with City regulations. Unless specifically modified by these Conditions of Approval, the Developer shall comply with all City regulations.
- A.7. Permit Expiration. The Conditional Use Permit (CUP) shall lapse and become void two years following the effective date of the CUP, unless a building permit and construction are diligently pursued toward completion or an extension is granted by the Planning Commission in accordance with TMC Section 10.08.4350 and 4360.
- A.8. Use to be conducted wholly indoors. With exception of gasoline or electric fueling and air or water dispensing that are normal outdoor operations of a service station, the use shall be conducted wholly indoors in accordance with the NS Zone. Any sale of propane or other product reasonably determined by the Development Services Director to be typically offered at a fueling station that are required by local, state, or federal law to be stored outdoors may be permitted provided that storage of such product is generally screened from view, such as by locating it behind the screen wall, to the satisfaction of the Development Services Director.

RESOLUTION 2020 - 010

RECOMMENDING APPROVAL OF A DEVELOPMENT REVIEW PERMIT FOR A RETAIL CONVENIENCE STORE, AN AUTOMOBILE SERVICE STATION WITH ELECTRIC VEHICLE CHARGING STATION, AND ASSOCIATED PARKING AND LANDSCAPING IMPROVEMENTS AT ASSESSOR'S PARCEL NUMBER 244-020-31 LOCATED AT THE SOUTHEAST CORNER OF CORRAL HOLLOW ROAD AND MIDDLEFIELD DRIVE - THE APPLICANT IS SCHACK AND COMPANY AND THE PROPERTY OWNERS ARE HARPREET SINGH & VARINDER PAL SINGH. APPLICATION NUMBER D19-0031

WHEREAS, On October 1, 2019, the City received a Development Review Permit application for a 3,884 sf convenience store building, an automotive service station with twelve pumps and an 2,880 sf canopy, an electric vehicle charging station consisting of seven stations, and associated parking area and landscaping improvements on the approximately 2.44-acre northwestern portion of an approximately 10.92-acre site located at the southeast corner of Corral Hollow Road and Middlefield Drive, which is associated with application for a Rezone of the site (R19-0001) and a Conditional Use Permit (CUP19-0013) received on December 2, 2019 (the "project"), and

WHEREAS, The project is consistent with the City of Tracy General Plan, in that the site is designated Commercial by the General Plan, and the proposed project is allowed under the Commercial land use designation, and

WHEREAS, The City Council is authorized to take final action on a Tier 1 Development Review Permit following a Planning Commission recommendation pursuant to Tracy Municipal Code Section 10.08.3950, and

WHEREAS, The project is categorically exempt from CEQA based on Guidelines Section 15183 which applies to development projects consistent with the General Plan for which an Environmental Impact Report was certified, and therefore, in accordance with California Environmental Quality Act Guidelines Section 15183, no further environmental assessment is required, and

WHEREAS, The Planning Commission conducted a public hearing to review and consider the application on June 10, 2020;

NOW, THEREFORE BE IT RESOLVED, That the Planning Commission does hereby recommend approval of a development review permit for the retail convenience store, automotive service station, electric vehicle charging station, and associated parking and landscaping improvements described in Application Number D19-0031, subject to (1) the conditions contained in Exhibit 1, and (2) that it will not take effect until and unless the project site is rezoned to the Neighborhood Shopping Zone following City Council approval of the rezone request (R19-0001), based on the following findings:

1. The proposal increases the quality of the project site and enhances the property in a manner that therefore improves the property in relation to the surrounding area and the citizens of Tracy, because the proposed project will improve the undeveloped site with structures embodying high-quality design and substantial landscaping throughout the development area. The retail building employs varying roof heights and materials, building popouts and wall movement, substantial stonework, decorative trims and accent lighting, and application of warm colors. The mansard tile roof and exposed rafter tails

complement the residential character of the adjacent subdivision. The fueling area canopy and the trash enclosure will architecturally match the building. All onsite structures are designed with a complementary level of architectural detailing, and utility equipment will largely be screened behind decorative screen walls and/or landscaping. Furthermore, the project is conditioned such that should any outdoor display of retail propane tanks or similar product occur, it shall be screened from general view, such as behind a screen wall. The site is designed with good through circulation, and landscaping in excess of minimum requirements is provided.

2. The proposal, as conditioned, conforms to the Tracy Municipal Code, the City of Tracy General Plan, the Citywide Design Goals and Standards, applicable City Standards, California Building Codes, and California Fire Codes, including land use (with granting of conditional use permit application number CUP19-0013 for the proposed land use), building design, off-street parking and circulation, and landscaping design.

* * * * *

The foregoing Resolution 2020 - 010 was adopted by the Planning Commission on the 10TH day of June, 2020, by the following vote:

AYES: COMMISSION MEMBERS:
NOES: COMMISSION MEMBERS:
ABSENT: COMMISSION MEMBERS:
ABSTAIN: COMMISSION MEMBERS:

CHAIR

ATTEST:

STAFF LIAISON

City of Tracy
Conditions of Approval
Edgewood Service Station
Application Number D19-0031
June 10, 2020

A. General Provisions and Definitions.

A.1. General. These Conditions of Approval apply to:

The Project: Edgewood Service Station, Application No. D19-0031

The Property: An approximately 10.92-acre site located at the southeast corner of Corral Hollow Road and Middlefield Drive, Assessor's Parcel Number 244-020-31

A.2. Definitions.

- a. "Applicant" means any person, or other legal entity, defined as a "Developer."
- b. "City Engineer" means the City Engineer of the City of Tracy, or any other duly licensed Engineer designated by the City Manager, or the Development Services Director, or the City Engineer to perform the duties set forth herein.
- c. "City Regulations" means all written laws, rules, and policies established by the City, including those set forth in the City of Tracy General Plan, the Tracy Municipal Code, ordinances, resolutions, policies, procedures, and the City's Design Documents (including the Standard Plans, Standard Specifications, Design Standards, and relevant Public Facility Master Plans).
- d. "Development Services Director" means the Development Services Director of the City of Tracy, or any other person designated by the City Manager or the Development Services Director to perform the duties set forth herein.
- e. "Conditions of Approval" shall mean the conditions of approval applicable to the Project located at the Property. The Conditions of Approval shall specifically include all conditions set forth herein.
- f. "Developer" means any person, or other legal entity, who applies to the City to divide or cause to be divided real property within the Project boundaries, or who applies to the City to develop or improve any portion of the real property within the Project boundaries. The term "Developer" shall include all successors in interest.

A.3. Compliance with submitted plans. Except as otherwise modified herein, the project shall be constructed in substantial compliance with the plans received by the Development Services Department on May 20, 2020. This includes the site plan, civil plans, landscape plans, and building elevations, colors, and materials.

A.4. Payment of applicable fees. The applicant shall pay all applicable fees for the project, including, but not limited to, development impact fees, building permit fees, plan check

fees, grading permit fees, encroachment permit fees, inspection fees, school fees, or any other City or other agency fees or deposits that may be applicable to the project.

- A.5. Compliance with laws. The Developer shall comply with all laws (federal, state, and local) related to the development of real property within the Project, including, but not limited to:
- the Planning and Zoning Law (Government Code sections 65000, et seq.)
 - the California Environmental Quality Act (Public Resources Code sections 21000, et seq., "CEQA"), and
 - the Guidelines for California Environmental Quality Act (California Administrative Code, title 14, sections 1500, et seq., "CEQA Guidelines").
- A.6. Compliance with City regulations. Unless specifically modified by these Conditions of Approval, the Developer shall comply with all City regulations.
- A.7. Protest of fees, dedications, reservations, or other exactions. Pursuant to Government Code section 66020, including section 66020(d)(1), the City HEREBY NOTIFIES the Developer that the 90-day approval period (in which the Developer may protest the imposition of any fees, dedications, reservations, or other exactions imposed on this Project by these Conditions of Approval) has begun on the date of the conditional approval of this Project. If the Developer fails to file a protest within this 90-day period, complying with all of the requirements of Government Code section 66020, the Developer will be legally barred from later challenging any such fees, dedications, reservations or other exactions.

B. Development Services Department Planning Division Conditions

Contact: Kimberly Matlock (209) 831-6430 kimberly.matlock@cityoftracy.org

- B.1. Enhanced Vapor Recovery. Before approval of a building permit, detailed plans shall be submitted to the Development Services Department that demonstrates construction details for the enhanced vapor recovery equipment in accordance with either Option A or Option B as shown in the plans dated January 24, 2020 to the satisfaction of the Development Services Department Director. Such plans shall demonstrate that the equipment will be fully screened from public view as shown in Options A and B for the different types of equipment options. Any vent pipes that are visible shall be painted to match the adjacent building.
- B.2. Parking Area.
- B.2.1. Before the approval of a building permit, the applicant shall provide detailed plans that show sidewalk and landscape planters perpendicular to parking stalls overhanging 24 inches into the parking stall in place of required wheel stops in Accordance with TMC Section 10.08.3530(e), where feasible. This landscape overhang may not be double-counted toward other parking area minimum landscape requirements.
- B.2.2. Before the approval of a building permit, the applicant shall provide site plans and construction details that demonstrate the number, design, and location of

- bicycle parking spaces will be provided in accordance with TMC Section 10.08.3510.
- B.2.3. Before the approval of a building permit, the applicant shall provide site plans and construction details that demonstrate minimum 12-inch wide concrete curbs along the perimeter of landscape planters where such planters are parallel and adjacent to vehicular parking spaces to provide access to vehicles without stepping into the landscape planters.
 - B.2.4. Before the approval of a building permit, the applicant shall provide detailed plans that demonstrate a minimum of one foot candle throughout the parking area.
 - B.2.5. Before final inspection or certificate of occupancy, all exterior and parking area lighting shall be directed downward or shielded, to prevent glare or spray of light off of glass and metal surfaces, into the public rights-of-way, and onto any adjacent private property to the satisfaction of the Development Services Department Director.
- B.3. Landscaping & irrigation. Before the approval of a building permit, the applicant shall provide detailed landscape and irrigation plans consistent with the Tracy Municipal Code Section 10.08.3560 for parking area landscaping and the following, to the satisfaction of the Development Services Department Director.
- B.3.1. Two additional accent trees shall be provided in the landscape area northwest of the building.
 - B.3.2. Trees shall be a minimum of 24" box size, shrubs shall be a minimum size of 5 gallon, and groundcover shall be a minimum size of 1 gallon.
 - B.3.3. Where trees are planted ten feet or less from a sidewalk or curb, root barriers dimensioned 8 feet long by 24 inches deep shall be provided adjacent to such sidewalk and curb, centered on the tree.
 - B.3.4. Each planter shall contain a combination of trees, shrubs, and groundcover. No planter area shall be comprised of solely of mulch or rock.
 - B.3.5. All existing street trees, except for any that are needed to be removed for the construction of required frontage improvements as determined by the City, shall remain and be protected during construction.
 - B.3.6. Landscape & Irrigation Maintenance. Prior to the issuance of a building permit, the Developer shall execute a two-year landscape and irrigation maintenance agreement and submit financial security, such as a performance bond, to ensure the success of all on-site landscaping for the term of the agreement. The security amount shall be equal to \$2.50 per square foot of the landscaped area or equal to the actual labor and material installation cost of all on-site landscaping and irrigation.
- B.4. Screening utilities and equipment.
- B.4.1. Before final inspection or certificate of occupancy, no roof mounted equipment, including, but not limited to, HVAC units, vents, fans, antennas, sky lights and dishes, whether proposed as part of this application, potential future equipment, or any portion thereof, shall be visible from any public right-of-way to the satisfaction of the Development Services Department Director. Detailed plans documenting compliance with this condition shall be submitted to the City prior to the issuance of a building permit.

- B.4.2. Before final inspection or certificate of occupancy, all PG&E transformers, phone company boxes, Fire Department connections, backflow preventers, irrigation controllers, and other on-site utilities, shall be vaulted or screened from view from any public right-of-way, behind structures or landscaping, to the satisfaction of the Development Services Department Director.
 - B.4.3. Before final inspection or certificate of occupancy, all vents, gutters, downspouts, flashing, electrical conduits, bollards, and other wall-mounted or building-attached utilities shall be internal to the structures where feasible or otherwise painted to match the color of the adjacent surfaces or otherwise designed in harmony with the building exterior to the satisfaction of the Development Services Department Director.
 - B.4.4. A trash enclosure shall be designed and appropriately sized for this project, including allowance for recycling collection. The trash and recycling collection enclosure shall include a solid roof structure, solid metal doors, and solid walls sufficiently sized to fully screen the dumpsters (no less than six feet in height). The enclosure, including the roof, shall be architecturally compatible with the buildings, which includes but is not limited to, design, materials, and colors. A six-inch concrete curb and/or bollards may be installed on the interior of the enclosure for the protection and durability of the enclosure walls. A building permit is required prior to construction of such enclosures for the evaluation of design and location to the satisfaction of the Development Services Director.
 - B.4.5. Any for-sale propane tanks or other products required by local, state, or federal law to be stored outdoors shall be located such that they are generally screened from view, such as by locating it behind the screen wall, to the satisfaction of the Development Services Director.
- B.5. Fencing. Any fence over seven feet in height shall obtain a building permit from the Development Services Department Building Safety Division.
- B.5.1 No chain-link fencing shall be located so that it is readily visible from any public right-of-way.
 - B.5.2 Electronically charged, razor wire, barbed wire, integrated corrugated metal, or plain exposed plastic concrete/PCC fences, vinyl slats, and woven fabric fences are not permitted anywhere on site.
- B.6. Habitat conservation. Prior to issuance of any permits for ground disturbance, the applicant shall comply with the San Joaquin County Habitat Conservation Division and a signed copy of the Incidental Take Minimization Measures shall be submitted to the City as verification of compliance.
- B.7. Signage. No business identification signs are approved with this permit. All business identification signs shall obtain a sign permit in accordance with the Tracy Municipal Code.

C. Development Services Department Engineering Division Conditions

Contact: Al Gali

(209) 831-6425

al.gali@cityoftracy.org

C.1. General Conditions

Developer shall comply with the applicable sections of approved documents and/or recommendations of the technical analyses/ reports prepared for the Project listed as follows:

- 1) "Edgewood Commercial Site Preliminary Storm Drainage Evaluation and Recommendations" prepared by Storm Water Consulting, Inc., dated January 28, 2020. ("**Storm Drainage Analysis**")
- 2) "Edgewood Commercial Traffic Review – Final" prepared by Kimley Horn and Associates dated April 9, 2020. ("**Traffic Analysis**")
- 3) "Plan Line Study Corral Hollow Road" prepared by Ruggeri-Jensen-Azar dated June 25, 2015. ("**Corral Hollow Plan Line**")

C.2. NOT USED

C.3. NOT USED

C.4. Grading Permit

All grading work (on-site and off-site) shall require a Grading Plan. All grading work shall be performed and completed in accordance with the recommendation(s) of the Project's Registered Geotechnical Engineer. The City will not accept a Grading Permit application for the Project until Developer provides all documents related to said Grading Permit required by the applicable City Regulations and these Conditions of Approval, to the satisfaction of the City Engineer, including, but not limited to, the following:

C.4.1 Developer has completed all requirements set forth in this section.

C.4.2 Developer has obtained the approval (i.e. recorded easements for slopes, drainage, utilities, access, parking, etc.) of all other public agencies and/or private entities with jurisdiction over the required public and/or private facilities and/or property. Written permission from PG&E or affected owner(s) will be required to be submitted to the City prior to the issuance of the Grading Permit.

C.4.3 Developer has obtained a demolition permit to remove any existing structure located within the project's limits.

C.4.4 All existing on-site water well(s), septic system(s), and leech field(s), if any, shall be abandoned or removed in accordance with the City and San Joaquin County requirements. Developer shall be responsible for all costs associated with the abandonment or removal of the existing well(s), septic system(s), and leech field(s) including the cost of permit(s) and inspection. Developer shall submit a copy of written approval(s) or permit(s) obtained from San Joaquin County regarding the removal and abandonment of any existing well(s), prior to the issuance of the Grading Permit.

C.4.5 The Improvement Plans for all improvements to serve the Project (on-site and off-site) including the Grading and Drainage Plans shall be prepared in accordance with the City's Subdivision Ordinance (Tracy Municipal Code

(TMC) Chapter 12.36), City Design Documents as defined in Title 12 of the TMC, and these Conditions of Approval.

- C.4.6 On-site Grading/Drainage Plans and Improvement Plans shall be prepared on a 24-inch x 36-inch size 4-millimeter thick polyester film (mylar). These plans shall use the City's Title Block. Improvement Plans shall be prepared under the supervision of, stamped and signed by a Registered Civil Engineer and Registered Geotechnical Engineer. Developer shall obtain all applicable signatures by City departments and outside agencies (where applicable) on the mylars including signatures by the Fire Marshal prior to submitting the mylars to Engineering Division for City Engineer's signature. Erosion control measures shall be implemented in accordance with the Improvement Plans approved by the City Engineer for all grading work. All grading work not completed before October 15 may be subject to additional requirements as applicable. Improvement Plans shall specify all proposed erosion control methods and construction details to be employed and specify materials to be used during and after the construction.
- C.4.7 Payment of the applicable Grading Permit fees which include grading plan checking and inspection fees, and other applicable fees as required by these Conditions of Approval.
- C.4.8 For Projects on property larger than one (1) acre: Prior to the issuance of the Grading Permit, Developer shall submit to the Utilities Department (stephanie.hiestand@cityoftracy.org) one (1) electronic copy and one (1) hard copy of the Storm Water Pollution Prevention Plan (SWPPP) as submitted in Stormwater Multiple Applications and Reporting Tracker System (SMARTS) along with either a copy of the Notice of Intent (NOI) with the state-issued Wastewater Discharge Identification number (WDID) or a copy of the receipt for the NOI. After the completion of the Project, the Developer is responsible for filing the Notice of Termination (NOT) required by SWQCB, and shall provide the City, a copy of the completed Notice of Termination. Cost of preparing the SWPPP, NOI and NOT including the annual storm drainage fees and the filing fees of the NOI and NOT shall be paid by the Developer. Developer shall comply with all the requirements of the SWPPP, applicable Best Management Practices (BMPs) and the Stormwater Post-Construction Standards adopted by the City in 2015 and any subsequent amendment(s).

For Projects on property smaller than one (1) acre: Prior to the issuance of the Grading Permit, the Developer shall submit to the Utilities Department (stephanie.hiestand@cityoftracy.org) one (1) electronic copy and 1 hard copy of the City of Tracy Erosion and Sediment Control Plan (ESCP) for approval. Cost of preparing the ESCP including any annual storm drainage fees shall be paid by the Developer. Developer shall comply with all the requirements of the ESCP, applicable BMPs and the Post-Construction Stormwater Standards adopted by the City in 2015 and any subsequent amendment(s).

C.4.9 Developer shall provide a PDF copy of the Project's Geotechnical Report signed and stamped by a Registered Geotechnical Engineer. The technical report must include relevant information related to soil types and characteristics, soil bearing capacity, compaction recommendations, retaining wall recommendations, if necessary, paving recommendations, slope recommendations, and elevation of the highest observed groundwater level.

C.4.10 Minor Retaining – Developer shall use reinforced or engineered masonry blocks for retaining soil when the grade differential exceeds twelve (12) inches. Developer will include construction details of these minor retaining walls with the on-site Grading and Drainage Plan. Developer may use slopes among the lots to address the grade differential but said slope shall not exceed a slope gradient of three (3) horizontal feet to one (1) vertical feet unless a California licensed geotechnical engineer signs and stamps a geotechnical report letter that supports a steeper slope gradient. Slope easements may be required and will be subject to approval by the City Engineer and if adjacent and affected property(s) owner(s) grants said easements.

Slopes are an acceptable option as a substitute to engineered retaining walls, where cuts or fills do not match existing ground or final grade with the adjacent property or public right of way, up to a maximum grade differential of two (2) feet, subject to approval by the City Engineer.

If required, slope easements will be recorded, prior to the issuance of the Grading Permit. The Developer shall be responsible to obtain and record slope easement(s) on private properties, where it is needed to protect private improvements constructed within and outside the Project, and a copy of the recorded easement document must be provided to the City, prior to the issuance of the Grading Permit.

Walls - Developer shall show proposed retaining walls and masonry walls on the on-site Grading and Drainage Plan. The Developer is required to submit improvement plans, construction details, and structural calculations for retaining walls and masonry walls to Building and Safety. Retaining wall and masonry wall design parameters will be included in the geotechnical report.

C.4.11 Developer shall provide a copy of the approved Incidental Take Minimization Measures (ITMM) habitat survey [San Joaquin County Multi-Species Habitat Conservation & Open Space Plan (SJMSCP)] from San Joaquin Council of Governments (SJCOG).

C.4.12 Developer shall provide a copy of the approved Air Impact Assessment (AIA) with an Indirect Source Review (ISR) and Dust Control from San Joaquin Valley Air Pollution Control District (SJVAPCD).

C.4.13 Developer shall abandon or remove all existing irrigation structures, channels and pipes, if any, as directed by the City after coordination with the irrigation district, if the facilities are no longer required for irrigation purposes. If

irrigation facilities including tile drains, if any, are required to remain to serve existing adjacent agricultural uses, the Developer will design, coordinate and construct required modifications to the facilities to the satisfaction of the affected agency and the City. Written permission from irrigation district or affected owner(s) will be required to be submitted to the City prior to the issuance of the Grading Permit. The cost of relocating and/or removing irrigation facilities and/or tile drains is the sole responsibility of the Developer.

C.4.14 If the Project contains overhead utilities, the Developer shall underground existing overhead utilities such as electric, TV cable, telephone, and others. Each dry utility shall be installed at the location approved by the respective owner(s) of dry utility and the Developer shall coordinate such activities with each utility owner. All costs associated with the undergrounding shall be the sole responsibility of the Developer and no reimbursement will be due from the City. Developer shall submit undergrounding plans. Exempt from this condition is the high voltage power lines along the Project's northerly property line.

C.4.15 If at any point during grading that the Developer, its contractor, its engineers, and their respective officials, employees, subcontractor, and/or subconsultant exposes/encounters/uncovers any archeological, historical, or other paleontological findings, the Developer shall address the findings as required per the General Plan Cultural Resource Policy and General Plan EIR; and subsequent Cultural Resource Policy or mitigation in any applicable environmental document.

C.4.16 Developer shall adhere to the recommendations of the referenced **Storm Drain Analysis**.

C.5. Improvement Agreement(s)

All construction activity involving public improvements will require a fully executed and notarized improvement agreement (Off-site, Subdivision, and/or Inspection). Any construction activity involving public improvements without a fully executed improvement agreement is prohibited. All public improvements shall be performed and completed in accordance with the recommendation(s) of the Project's Registered Civil Engineer. The City will not start writing any improvement agreement or schedule any improvement agreement to be approved by City Council for the Project until the Developer provides all documents related to said improvements required by the applicable City Regulations and these Conditions of Approval, to the satisfaction of the City Engineer, including, but not limited to, the following:

C.5.1. Off-site and/or Public Infrastructure Improvement Plans prepared on a 24-inch x 36-inch size 4-millimeter thick mylar that incorporate all requirements described in the documents described in these Conditions of Approval, the City's Design Documents as defined in Title 12 of the Tracy Municipal Code. Developer shall use the latest title block and, if necessary, contain a signature block for the Fire Marshal. Improvement Plans shall be prepared under the supervision of, and stamped and signed by a Registered Civil, Traffic, Electrical, Mechanical Engineer, and Registered Landscape Architect

for the relevant work. Developer shall obtain all applicable signatures by City departments and outside agencies (where applicable) on the mylars including signatures by Fire Marshal to submitting the mylars to Engineering Division for City Engineer's signature. The improvement plans shall be prepared to specifically include, but not be limited to, the following items:

- C.5.1.a. All existing and proposed utilities such as domestic water line, irrigation service, fire service line, storm drain, and sanitary sewer, including the size and location of the pipes.
- C.5.1.b. All supporting engineering calculations, materials information or technical specifications, cost estimate, and technical reports. All improvement plans shall contain a note stating that the Developer (or Contractor) will be responsible to preserve and protect all existing survey monuments and other survey markers such as benchmarks.
- C.5.1.c. A PDF copy of the Project's Geotechnical/Soils Report, prepared or signed and stamped by a Registered Geotechnical Engineer. The technical report must include relevant information related to street pavement thickness, materials, compaction and other pertinent information.
- C.5.1.d. Storm Water - The Project's on-site storm water drainage connection to the City's storm water system shall be approved by the City Engineer. Drainage calculations for the sizing of the on-site storm drainage system. Improvement Plans to be submitted with the hydrology and storm water.

As required by Item No. 15, Section V on page 94 of the 2008 Design Standards, storm drain run-off will not cross lot lines. Generally, the storm drain release point is a location at the boundary of the Project adjacent to the public right-of-way where storm water leaves the Property during a storm event and the Property's on-site storm drainage system fails to function or is clogged. Developer has requested that their site grading be designed such that the Project's storm water during a 100-year storm event with a non-functioning storm drain system be contained entirely within their private on-site basin (and thus not have an overland release point). The storm drain system shall be designed and improved to the satisfaction of the City Engineer.

The Project's permanent storm drainage connection(s) shall be designed and constructed in accordance with City Regulations. The design of the permanent storm drainage connection shall be shown on the Grading and Drainage Plans with calculations for the sizing of the storm drain pipe(s), and shall comply with the applicable requirements of the City's storm water regulations adopted by the City Council in 2012 and any subsequent amendments.

No on-site runoff will discharge directly into the City's storm drain system without first flowing into a storm water quality treatment system.

- C.5.1.e. Sanitary Sewer - It is the Developer's responsibility to design and construct the Project's permanent on-site sanitary sewer (sewer) improvements including the Project's sewer connection in accordance with the City's Design Standards, City Regulations and Standard Specifications. Sewer improvements shall include but not limited to, replacing asphalt concrete pavement, reconstructing curb, gutter and sidewalk, restoring pavement marking and striping, and other improvements that are disturbed as a result of installing the Project's permanent sewer connection. Developer shall submit improvement plans that include the design of the sewer line from the Property to the point of connection.

Project's sewer connection will be towards Middlefield Drive.

Developer is hereby notified that the City will not provide maintenance of the sewer lateral within the public right-of-way unless the sewer cleanout is located and constructed in conformance with Standard Plans. The City's responsibility to maintain on the sewer lateral is from the wye/onsite sewer manhole at the right-of-way line/property line/wye fitting to the point of connection with the sewer main.

- C.5.1.g. Water Distribution - Developer shall design and construct domestic and irrigation water service that comply with the City Regulations. Water line sizing, layout and looping requirements for this Project shall comply with City Regulations. During the construction of the Project, the Developer is responsible for providing water infrastructure (temporary or permanent) capable of delivering adequate fire flows and pressure appropriate to the various stages of construction and as approved by the Fire Marshal.

Interruption to the water supply to the existing businesses and other users will not be allowed to facilitate construction of improvements related to the Project. Developer shall be responsible for notifying business owner(s) and users, regarding construction work. The written notice, as approved by the City Engineer, shall be delivered to the affected residents or business owner(s) at least seventy two (72) hours before start of work. Prior to starting the work described in this section, the Developer shall submit a Work Plan acceptable to the City that demonstrates no interruptions to the water supply, and Traffic Control Plan to be used during the installation of the off-site water mains and connections.

The Project's water service connections shall use a remote-read (radio-read) master water meter (the water meter to be located within City's right-of-way) and a Reduced Pressure Type back-flow protection device in accordance with City Regulations. The domestic and irrigation water service connection(s) must be completed before the inspection of the building. The location of the meters shall be approved by the City Engineer.

After improvement acceptance, repair and maintenance of the water service from the water meter to the point of connection with the water distribution main in the street shall be the responsibility of the City. Water service repairs after the water meter is the responsibility of the Developer or individual lot owner(s).

Prior to improvement acceptance, repair and maintenance of all on-site water lines, laterals, sub-water meters, valves, fittings, fire hydrant and appurtenances shall be the responsibility of the Developer or the individual lot owner(s).

All costs associated with the installation of the Project's water connection(s) including the cost of removing and replacing asphalt concrete pavement, pavement marking and striping such as crosswalk lines and lane line markings on existing street or parking area(s) that may be disturbed with the installation of the permanent water connection(s), or domestic water service, and other improvements shall be paid by the Developer.

Fire Service Line(s) and Hydrant – Location and construction details of fire service line including fire hydrant(s) that are to serve the Project shall be approved by the Fire Marshal. Prior to the approval of the Improvement Plans by the City Engineer, the Developer shall obtain written approval from the Fire Marshal, for the design, location and construction details of the fire service connection to the Project, and for the location and spacing of fire hydrants that are to be installed or planned to serve the Project.

- C.5.1.h. Streets – All streets and utilities improvements within City right-of-way shall be designed and constructed in accordance with City Regulations, and City's Design Standards including the City's Facilities Master Plan for storm drainage, roadways, wastewater, and water as adopted, amended, and updated by the City, or as otherwise specifically approved by the City.

Developer shall use existing utility stubs from Corral Hollow Road or Middlefield Dive as feasible. If the stubs are not present or

additional utility connections are required, the pavement restoration shall conform to C.8.1 of these Conditions.

Corral Hollow Road - Developer shall construct frontage improvements on Corral Hollow Road conform to the **Traffic Analyses** prepared by Kimley Horn and Associates dated April 9, 2020 and the **Corral Hollow Plan Line**.

The Project's existing Corral Hollow Road frontage shall be removed and replaced to accommodate a twelve (12) feet wide right-turn pocket and six (6) feet wide bike lane as outlined in the **Corral Hollow Plan Line**. The sidewalk shall be five (5) feet six (6) inches wide and be located immediately behind the raised curb. The remaining right-of-way shall be landscaped and irrigated parkway. The curb alignment shall be in substantial conformance to the exhibit labeled "Ultimate Concept Plan" in the **Corral Hollow Plan Line**. Developer shall construct curb, gutter, sidewalk, landscaping, street trees, irrigation systems, street lights, storm drain inlets, traffic striping signage, etc.

Developer shall modify the four way traffic signal located on Corral Hollow Road and Middlefield Drive. Traffic signal improvements shall include the signal, poles, mast arms, turn lanes, right-of way acquisition, and appurtenances such as control cabinet, detector loops, striping, etc. to allow the traffic signal to function. If any equipment is needed to be placed on Developer's property, then Developer shall provide the City with an easement dedications of rights of way. Said traffic signal will be a four (4) leg intersection. Developer shall provide traffic signal timing sheets to re-time the traffic signal.

Developer shall construct an asphalt-concrete dike to create a raised median. Developer shall also install reflective delineators on the asphalt concrete dike.

Middlefield Drive – Developer shall replace the raised landscaped and irrigated median with a four (4) feet wide raised median. Developer shall construct a left-turn pocket with a depth of two hundred and ten (210) feet and a shared left, through, and right-turn lane. Developer shall maintain the existing bike lane and existing left-turn lane into the existing apartment complex. As a result of these improvements, Developer shall reprogram/re-time the traffic signal.

Developer shall dedicate a Public Utility Easement on all public streets. The P.U.E. will be ten (10) feet wide.

Public Right-of-Way Landscaping - On the east side of Corral Hollow Road and the south side of Middlefield Drive, Developer

shall landscape and irrigate the existing area as per current adopted City landscape standards. Landscape and irrigation plans shall be prepared on a 24-inch x 36-inch size 4-millimeter thick mylar that incorporate all requirements described in the documents described in these Conditions of Approval, the City's Design Documents as defined in Title 12 of the Tracy Municipal Code. Developer shall use the latest title block. Said landscape and irrigation plan shall be prepared by a California licensed landscape architect. Developer can either protect-in-place the existing sidewalk and repair any cracked, settled, and/or damaged sidewalk or remove and replace the sidewalk so long as the replacement sidewalk is similar to the current sidewalk, i.e. similar width, meanders, etc. Developer shall also install street trees in the landscaped area between the existing meandering sidewalk and the curb and gutter. On the opposite side of the sidewalk, Developer shall install additional street trees, shrubs, ground cover, and other landscaping as required. The landscaping and irrigation shall conform to MWELo standards. If recommended, Developer shall use structural soil if the street trees' well is narrower than five (5) feet wide. Developer shall also remove existing sign monument and its appurtenances, and any other existing items such as bollards, mailboxes, etc. The easterly curb return of the neighbor's westerly driveway shall have a minimum curb radius of 60-feet.

C.5.2. Joint Trench Plans and Composite Utility Plans, prepared on a 24-inch x 36-inch size 4-millimeter thick mylar for the installation of dry utilities such as electric, gas, TV cable, telephone, and others that will be located within the ten (10) feet wide P.U.E. to be installed to serve the Project. All private utility services to serve Project must be installed underground or relocated to be underground, and to be installed at the location approved by the respective owner(s) of the utilities from the street or an existing or proposed utility easement to the building(s). If necessary, the Developer shall dedicate 10-foot wide P.U.E. for access to these new utilities for re-installation, replacement, repair, and maintenance work to be performed by the respective utility owner(s) in the future.

C.5.3. Signed and stamped Engineer's Estimate that summarizes the cost of constructing all the public improvements shown on the Improvement Plans. The cost estimate shall show the cost of designing the public improvements.

Payment of applicable fees required by these Conditions of Approval and City Regulations, including but not limited to, plan checking, grading and encroachment permits and agreement processing, construction inspection, and testing fees. The engineering review fees will be calculated based on the fee rate adopted and updated by the City Council. Developer shall submit payment in the form of a check for the aforementioned fees.

C.5.5. Traffic Control Plan - Prior to starting the work for any work within City's right-of-way, the Developer shall submit a Traffic Control Plan (TCP). TCP can be

split among the different construction phases. TCP will show the method and type of construction signs to be used for regulating traffic at the work areas within these streets. TCP shall conform to the Manual on Uniform Traffic Control Devices as amended by the State of California, latest edition (MUTCD-CA). TCP shall be prepared under the supervision of, signed and stamped by a Registered Civil Engineer or Registered Traffic Engineer.

Access and Traffic Circulation to Existing Businesses/Residents - Developer shall take all steps necessary to plan and construct site improvements such that construction operations do not impact safety and access (including emergency vehicles) to the existing businesses and residents throughout the duration of construction. Developer shall coordinate with the owners and cooperate to minimize impacts on existing businesses. All costs of measures needed to provide safe and functional access shall be borne by the Developer.

- C.5.6. No street trench shall be left open, uncovered, and/or unprotected during night hours and when the Developer's contractor is not performing construction activities. Appropriate signs and barricades shall be installed on the street and on all trenches during such times. If the Developer or its contractor elects to use steel plates to cover street trenches, said steel plates will be skid-resistance, and shall be ramped on all sides. Ramps will be a minimum two-foot wide and will run the entire length of each side.
- C.5.7. If at any point during utility installation or construction in general that the Developer, its contractor, its engineers, and their respective officials, employees, subcontractor, and/or subconsultant exposes/encounters/uncovers any archeological, historical, or other paleontological findings, the Developer shall address the findings as required per the General Plan Cultural Resource Policy and General Plan EIR; and subsequent Cultural Resource Policy or mitigation in any applicable environmental document.
- C.5.8. Off-site Public Improvements, If Applicable - Prior to the Developer commencing construction of off-site public improvements, Developer shall possess a fully executed Off-site Improvement Agreement (OIA). Developer shall also complete all of the following requirements to the satisfaction of the City Engineer:

Developer has paid all required processing fees including plan check and inspection fees.

Improvement Security - Developer shall provide improvement security for all public facilities, as required by the Improvement Agreement. The form of the improvement security may be a bond, or other form in accordance with the Government Code, and the TMC. The amount of the improvement security shall be in accordance with Title 12 of the TMC.

Insurance – Developer shall provide written evidence of insurance coverage that meets the terms of the Improvement Agreement.

C.6. Building Permit

No building permit within the Project boundaries will be approved by the City until the Developer demonstrates, to the satisfaction of the City Engineer, compliance with all required Conditions of Approval, including, but not limited to, the following:

- C.6.1 Developer has completed all requirements set forth in Condition C.1, through C.5, above.
- C.6.2 Developer pays the applicable development impact fees as required in the TMC, these Conditions of Approval, the fees outlined for the Northeast Industrial area as approved and updated by City Council, and City Regulations applicable at the time a building permit from the City is requested.

C.7 Acceptance of Public Improvements

Public improvements will not be considered for City Council's acceptance until after the Developer demonstrates to the reasonable satisfaction of the City Engineer, completion of the following:

- C.7.1 Developer has satisfied all the requirements set forth in these Conditions of Approval.
- C.7.2 Developer submitted the Storm water Treatment Facilities Maintenance Agreement (STFMA) to the Utilities Department.
- C.7.3 Developer has satisfactorily completed construction of all required/conditioned improvements. Unless specifically provided in these Conditions of Approval, or some other applicable City Regulations, the Developer shall use diligent and good faith efforts in taking all actions necessary to construct all public facilities required to serve the Project, and the Developer shall bear all costs related to construction of the public facilities (including all costs of design, construction, construction management, plan check, inspection, land acquisition, program implementation, and contingency).
- C.7.4 Certified "As-Built" Improvement Plans (or Record Drawings). Upon completion of the construction by the Developer, the City, at its sole discretion, temporarily release the original mylars of the Improvement Plans to the Developer so that the Developer will be able to document revisions to show the "As-Built" configuration of all improvements.
- C.7.6 Developer shall be responsible for any repairs or reconstruction of street pavement, curb, gutter and sidewalk and other public improvements along the frontage of the Project, if determined by the City Engineer to be in poor condition or damaged by construction activities related to the Project.

- C.7.7 Developer has completed the 90-day public landscaping maintenance period.
- C.7.8 Release of Improvement Security – Release of improvement security shall be in accordance with the requirements of Title 12 of the TMC. Monumentation Bond will be released to the Developer after City Council's acceptance of the public improvements and if the Developer meets the terms set in Section 66497(c) of the Subdivision Map Act. All survey monuments shown on the Final Map, if applicable, must be installed. Any altered, damaged, or destroyed survey monuments and/or benchmarks shall be re-established. Developer shall submit centerline tie sheets or a record of survey for the following: new public streets; re-established survey monuments, and/or benchmarks. If the Developer destroyed, altered, and/or reconstructed any existing curb returns, Developer shall also submit corner records. Any survey document will be submitted the City and to the San Joaquin County Surveyor to comply with California Business and Professions Code Section 8771(c). Said work shall be executed by a California licensed Land Surveyor at the Developer's sole expense.
- C.8 Special Conditions
- C.8.1 When street cuts are made for the installation of utilities, the Developer shall conform to Section 3.14 of the 2008 Design Standards and is required install a 2-inch thick asphalt concrete (AC) overlay with reinforcing fabric at least 25-feet from all sides of each utility trench. A 2-inch deep grind on the existing AC pavement will be required where the AC overlay will be applied and shall be uniform thickness in order to maintain current pavement grades, cross and longitudinal slopes. This pavement repair requirement is when cuts/trenches are perpendicular and parallel to the street's direction.
- C.8.2 Nothing contained herein shall be construed to permit any violation of relevant ordinances and regulations of the City of Tracy, or other public agency having jurisdiction. This Condition of Approval does not preclude the City from requiring pertinent revisions and additional requirements to the improvement plans, prior to the City Engineer's signature on the improvement plans, and prior to issuance of Grading Permit, Encroachment Permit, Building Permit, if the City Engineer finds it necessary due to public health and safety reasons, and it is in the best interest of the City. The Developer shall bear all the cost for the inclusion, design, and implementations of such additions and requirements, without reimbursement or any payment from the City.
- C.8.3 If water is required for the project, the Developer shall obtain an account for the water service and register the water meter with the Finance Department. Developer shall pay all fees associated with obtaining the account number for the water service.
- C.8.4 Developer shall obtain an account for the water service to the Project and register the water meter with the Finance Department. Developer shall prepare

and submit a map depicting the location of the water meter on a 8.5-inch X 11-inch sheet to Finance Department.

- C.8.5 Developer shall install on-site stop bars, stop legends, and keep clear legends as recommended by the **Traffic Analysis**.
- C.8.6 Prior to the release of the grading permit, Developer shall grant a public access easement to the property directly adjacent to the east.

D. Utilities Department Conditions

Contact: Stephanie Hiestand (209) 831-6333 stephanie.hiestand@cityoftracy.org

D.1. Compliance with Codes. Before the approval of a building permit, the applicant shall demonstrate compliance with Tracy Municipal Code Chapter 11.34 Stormwater Management and Discharge Control and Chapter 11.28 Water Management and with the California Green Building Standards Code Chapter 5 for Non-Residential occupancies. A Stormwater Pollution Prevention Plan (SWPPP) and WDID number will be required prior to a grading permit issuance.

D.2. Stormwater Quality. Before the approval of a building permit, the applicant shall demonstrate compliance with the 2015 Post-Construction Stormwater Standards (PCSWS) Manual and obtain approval through the following:

D.2.a. Develop a Project Stormwater Plan (PSP) that identifies the methods to be employed to reduce or eliminate stormwater pollutant discharges through the construction, operation and maintenance of source control measures, low impact development design, site design measures, stormwater treatment control measures and hydromodification control measures.

Design and sizing requirements shall comply with PCSWS Manual. Demand Management Areas must be clearly designated along with identification of pollutants of concern.

Calculations of the Stormwater Design Volume and/or Design Flow with results from the Post-Construction Stormwater Runoff Calculator must be submitted in the PSP for approval.

Per the PCSWS Manual, include a hydromodification management plan ensuring the post-project runoff flow rate shall not exceed estimated pre-project flow rate for the 2-year, 24 hour storm.

Submit one (1) hard copy of the PSP and an electronic copy to the Utilities Department (WaterResources@cityoftracy.org), include the project name, address and Project # and/or Permit # in the title or subject line.

D.2.b. A separate plan sheet(s) designated SW shall be submitted in the plan set that includes the identified methods for pollution prevention outlined in the submitted PSP. You must include all standards, cross sections and design specifications such as landscape requirement in treatment areas including

type of irrigation installation and/or height of drain inlet above the flow line, etc. in these SW plan sheets along with legend.

- D.2.c. Develop and electronically submit to the Utilities Department for approval (WaterResources@cityoftracy.org) a preliminary Operations and Maintenance (O & M) Plan that identifies the operation, maintenance, and inspection requirements for all stormwater treatment and baseline hydromodification control measures identified in the approved PSP.
- D.2.d. No later than two (2) months after approval notification of the submitted PSP, applicant shall electronically submit the following information to the Utilities Department (WaterResources@cityoftracy.org) for development of a draft stormwater maintenance access agreement, in accordance with the MAPCSWS;
- i. Property Owner(s) name and title report; or Corporate name(s) and binding documents (resolutions, etc) designating ability to sign agreement
 - ii. Property Address
 - iii. Exhibit A – legal property description
 - iv. Exhibit B – approved O & M Plan
- D.3. Prior to issuance of a grading permit, applicant shall provide proof of permit coverage under the Construction General Permit shall be required and submittal of an electronic Stormwater Pollution Prevention Plan (SWPPP) shall be submitted to WaterResources@cityoftracy.org
- D.4. Prior to approval for Certificate of Occupancy, applicant shall:
- 4.a. Return to the City Clerk, a legally signed and notarized copy of the final maintenance access agreement including all exhibits and approved O & M plan received from the Utilities Department.
 - 4.b. Obtain final approval by the Utilities Department of the constructed and installed Stormwater pollution prevention methods outlined in the PSP.
 - i. Frequent inspections of the Post-Construction treatment measures should occur during the construction phase by calling 209-831-6333.
 - 4.c. If applicable, the project shall be in full compliance with Construction General Permit including 70% stabilization of the project with Notice of Termination approval.
- D.5. Prior to issuance of a construction or building permit, applicant shall demonstrate compliance with the 2015 Model Water Efficient Landscape Ordinance and obtain approval by the Utilities Department through the following:
- 5.a. Develop and submit electronically and by hard copy, a Landscape Document Package (LDP) that identifies the methods to be employed to reduce water usage through proper landscape design, installation and maintenance. This LDP shall consist of:
 - i. A project information sheet that includes the checklist of all documents in the LDP;
 - ii. The Water Efficient Landscape Worksheets that include a hydrozone

- information table and the water budget calculations – Maximum Applied Water Allowance and Estimate Total Water Use;
- iii. A soil management report, after compaction and from various locations throughout the project;
 - iv. A landscape design plan that includes the statement, “I agree to comply with the requirements of the 2015 water efficient landscape ordinance and shall submit for approval a complete Landscape Document Package:
 - v. An irrigation design plan with schedule; and
 - vi. A grading design plan.
- 5.b. A Certificate of Completion must be completed, signed, and submitted to the Utilities Department prior to Final approval for Occupancy.

E. Building Safety Division Conditions

Contact: Phillip Rainone (209) 831-6413 phillip.rainone@cityoftracy.org

- E.1. Prior to the construction of the project, applicant shall submit construction documents, plans, specifications and/or calculations to the Building Safety Division, which meet all requirements of Title 24 California Code of Regulations and City of Tracy Municipal Codes, as applicable.

F. South San Joaquin County Fire Authority Conditions

Contact: Courtney Wood (209) 831-6707 courtney.wood@cityoftracy.org

- F.1. Prior to construction, the applicant shall submit building construction plans to South San Joaquin County Fire Authority for review and approval. All submittals shall be in electronic format, accompanied by an application for a building permit.
- F.2. Prior to submittal of construction permit applications, applicant shall incorporate the following into the construction drawings:
- F.2.a. All fire apparatus access roads shall have an unobstructed height of not less than 13'-06".
 - F.2.b. Ensure all deferred submittal items are listed on the coversheet, including, but not limited to, underground storage tanks, hazardous materials, fire sprinklers systems, fire alarm systems, if any.
 - F.2.c. Specify if building has fire suppression systems installed.
- F.3. Prior to prior to construction and after grading, the applicant shall ensure the fire apparatus access roads are installed, and all hydrants have been flushed and are operational.
- F.4. Prior to occupancy, applicant is responsible to have the emergency responder radio coverage tested. If coverage is limited and extended radio coverage is required, applicant must submit construction documents prior to installation.