PUBLIC DRAFT
INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

FOR THE

ROCKING HORSE DEVELOPMENT PROJECT

NOVEMBER 2015

Prepared for:

City of Tracy
Department of Development Services
333 Civic Center Plaza
Tracy, CA 95676

Prepared by:

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

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-
A Land Use Planning, Design, and Environmental Firm

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INITIAL STUDY

PROJECT TITLE

Rocking Horse Development Project

LEAD AGENCY NAME AND ADDRESS

City of Tracy
333 Civic Center Plaza
Tracy, CA 95376

CONTACT PERSON AND PHONE NUMBER

Vicki Lombardo, Senior Planner
Development Services Department
City of Tracy
(209) 831-6428

PROJECT SPONSOR'S NAME AND ADDRESS

Bates Stringer Tracy II, LLC
875 Orange Blossom Way
Danville, CA 94526

PURPOSE OF THE INITIAL STUDY

An Initial Study (IS) is a preliminary analysis which is prepared to determine the relative environmental impacts associated with a proposed project. It is designed as a measuring mechanism to determine if a project will have a significant adverse effect on the environment, thereby triggering the need to prepare an Environmental Impact Report (EIR). It also functions as an evidentiary document containing information which supports conclusions that the project will not have a significant environmental impact or that the impacts can be mitigated to a "Less Than Significant" or "No Impact" level. If there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, the lead agency shall prepare a Negative Declaration (ND). If the IS identifies potentially significant effects, but: (1) revisions in the project plans or proposals would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and (2) there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment, then a Mitigated Negative Declaration (MND) shall be prepared.

This Initial Study has been prepared consistent with CEQA Guidelines Section 15063, to determine if the proposed Rocking Horse Development Project (project) may have a significant effect upon the environment. Based upon the findings and mitigation measures contained within this report, a Mitigated Negative Declaration (MND) will be prepared.

PROJECT LOCATION AND SETTING

PROJECT LOCATION

The Project site consists of 59.1 acres located at 25380 and 25376 South Lammers Road in the west-central quadrant of the city of Tracy, northeast of the intersection of Lammers and Redbridge Roads. The Project site encompasses Assessor Parcel Numbers (APN) 240-060-26, and 240-060-27.

The project's regional location is shown in Figure 1, and the project vicinity is shown in Figure 2.

EXISTING SITE USES

The Project site currently consists of agricultural land, and one residential structure. Historically the site was developed with orchard trees, but they have since been removed. Recent agricultural production on the site consists of agricultural grass crop production, most recently alfalfa hay. A treeline is located along the western edge of the Project site, and one tree is present within the interior of the site. A total of 128 trees are located on the Project site. The parcel (APN 240-060-27) located on the west-central portion of the Project site is a 3-acre lot with one single-family residential home that is currently occupied, but will be vacated and removed upon project implementation. Figure 3 shows an aerial view of the Project site.

SURROUNDING LAND USES

Lands to the south and east of the Project site consist of single-family residential uses. The parcels adjacent to the north, and to the west across South Lammers Road consist of agricultural uses (alfalfa fields, and cattle grazing). Further north approximately 0.35 miles is John C. Kimball High School. Single-family residential land uses are located further north and east of the Project site. Furthermore, there are several large-lot ranchette style homes to the northwest of the Project site across South Lammers Road.

PROJECT DESCRIPTION

The proposed project would develop 226 single-family detached housing units on the 59.1-acre Project site. The project would consist of low-density residential development (3.82 units per acre). Lot sizes would range between 5,672 and 15,844 square feet, with an average lot size of 7,194 square feet. Lots would be generally uniform in nature (rectangular shaped). Corner lots, and lots on the periphery would be generally larger and not uniform in shape. Within the southern portion of the Project site 2.4-acres of private park space is proposed for the exclusive use by project residents. A detailed vesting tentative map has been prepared and submitted for approval, Figure 4 shows the proposed site plan layout.

The project applicant would construct a new road (Crossroads Drive) running east-west, along the northern edge of the site connecting the Project site to South Lammers Road. Improvements to the existing South Lammers Roadway are also proposed. These improvements include the dedication of 70 feet of Right-of-Way (ROW) that would increase the total ROW from 67 feet to 137 feet and include new lane configurations, a 16ft median with left turn pockets, a new sidewalk with landscaping buffers, and Class 1 bicycle lanes. Internal circulation at the Project

site would consist of an interconnected street network and include 13 new internal roadways to be constructed.

The Vesting Tentative Map identifies that the project would be served by the following existing service providers:

- City of Tracy for water;
- City of Tracy for wastewater collection and treatment;
- City of Tracy for stormwater collection;
- Pacific Gas and Electric Company for gas and electricity.

Utility extensions would be installed to provide services to project residents. Utility lines within the Project site would be run through the rights-of-way created by the project's internal street network. Wastewater lines would be connected via an existing sanitary sewer line along South Lammers Road northwest of the Project site. Storm drainage would be provided for the Project through the construction of a temporary on-site detention basin located in the northeast portion of the Project site. Potable water connections would be extended from existing water service lines located along South Lammers Road, and Redbridge Road.

The project applicant is requesting a General Plan amendment to change land uses on the Project site from Urban Reserve 8 (UR-8) to Residential Low (RL). Additionally, the project applicant is requesting a rezone of the Project site from Low Density Residential (LDR) to Planned Unit Development (PUD).

GENERAL PLAN AND ZONING DESIGNATIONS

The Project site is currently designated Urban Reserve 8 (UR-8) by the City of Tracy General Plan Land Use Designations Map. The Urban Reserve designation is applied to relatively large, contiguous geographic areas where comprehensive planning is expected to occur. Approval of a General Plan Amendment from Urban Reserve to Residential Low (RL) would be required prior to, or as a component of, project approval.

The following General Plan policies apply to the Urban Reserve 8 (UR-8) Land Use Designation:

- 8a. The acreages assigned to land uses in the statistical profile for this Urban Reserve are intended as guidelines; the overall distribution and mixture of residential densities may change.
- 8b. Future development in this Urban Reserve should have a well-integrated mix of housing types with an average density of six dwelling units per acre.
- 8c. Development in this area should be coordinated with development in Urban Reserves 5 and the surrounding development to ensure adequate transitions between the location, site layout and intensity of land uses.

The following Standards apply to the Proposed Residential Low (RL) Land Use Designation:

- **Residential Low (RL)**. Single family dwelling units are the principal type of housing stock allowed in these areas. Attached units, zero lot line and clustered housing are also

permissible and are encouraged within the overall framework of each community. These housing types can help to meet the City's desire to create unique neighborhoods and enhance the character of the community. Allowable densities 2.1 to 5.8 units per gross acre.

The Project site is currently zoned Low Density Residential (LDR). Approval of a Zoning Amendment from Low Density Residential to Planned Unit Development (PUD) would be required prior to, or as a component of, project approval.

The following requirements apply to the Low Density Residential (LDR) Zoning Designation:

- The minimum lot area shall be 5,600 square feet.
- The minimum lot width shall be fifty-six (56') feet; provided, however, lots on cul-de-sacs or knuckles shall have a minimum frontage of forty-five (45') feet at the front lot line.
- The minimum lot depth shall be ninety (90') feet.
- The maximum height in the LDR Zone shall be two and one-half (2½) stories or thirty-five (35') feet, whichever is less; provided, however, any residence exceeding two (2) stories in height shall have all windows above the second story facing the street frontage.
- The maximum aggregate coverage of all buildings in the LDR Zone shall not exceed forty-five (45%) percent of the lot.

Proposed PUD Standards based on the Tentative Map standards:

Unless otherwise expressly noted below, and when not in conflict with the standards outlined below, development standards shall be consistent with the Low Density Residential Zone (LDR) – Title 10, Article 7 of the Tracy Municipal Code. All standards for fence, wall and hedge heights, swimming pools, portable buildings, shade structures, projections into yards and courts, shall be consistent with Tracy Municipal Code Article 24 of Chapter 10.08 – Zoning Regulations. Parking of boats or recreation vehicles and motor homes within driveways or within any required front yard areas is prohibited.

Minimum Lot Area	5,600 sf
Minimum Lot Width	63' (50' on knuckles)
Minimum Lot Depth	90' (75' on knuckles)
Maximum Lot Coverage	55% (excludes porches and shade structures)
Maximum Building Height	35'
Minimum Setbacks:	
Front Setback to Garage	20'
Front Setback to House	15'
Front Setback to Porch	10'
Side Yard Setback	5'
Side Yard Setback (Corner Lots)	10' on street side, 5' on interior side
Rear Yard Setback	10' for 63' x 90' lots and 20' for 90' x 100' lots
Parking On-Site	20' x 20' 2 -Car Garage, 2 Driveway Spaces

The General Plan Land Use Map and Zoning designations for the Project site are shown on Figure 5 and Figure 6.

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 the California Environmental Quality Act (CEQA), Section 15050.

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

- Adoption of the Mitigated Negative Declaration (MND)
- Adoption of the Mitigation Monitoring and Reporting Program (MMRP)
- Approval of a General Plan Amendment to amend the land use designation from Urban Reserve to Residential Low
- Zoning Amendment from Low Density Residential to Planned Unit Development (PUD)
- Preliminary and Final Development Plan Approval
- Approval of the Vesting Tentative Subdivision Map with conditions to subdivide the Project site
- Approval of a Concept Plan

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 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).

PROJECT GOALS AND OBJECTIVES

The City of Tracy and the project applicant have identified the following goals and objectives for the proposed project:

1. Expand the available supply of residential housing options in the City of Tracy, consistent with the City's General Plan.
2. Develop a project that is consistent and compatible with the surrounding land uses, and follows a logical development pattern.
3. Increase the supply of market-rate housing units within the City of Tracy.
4. Provide residential housing opportunities that are visually attractive and accommodate the future housing demand in the City of Tracy.

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Rocking Horse Project MND
TRACY, CALIFORNIA

Figure 1: Project Regional Location/Context

N

0 10 20
Miles

1:1,500,000

Data source: California Spatial Information Library. Map date: December 22, 2014.

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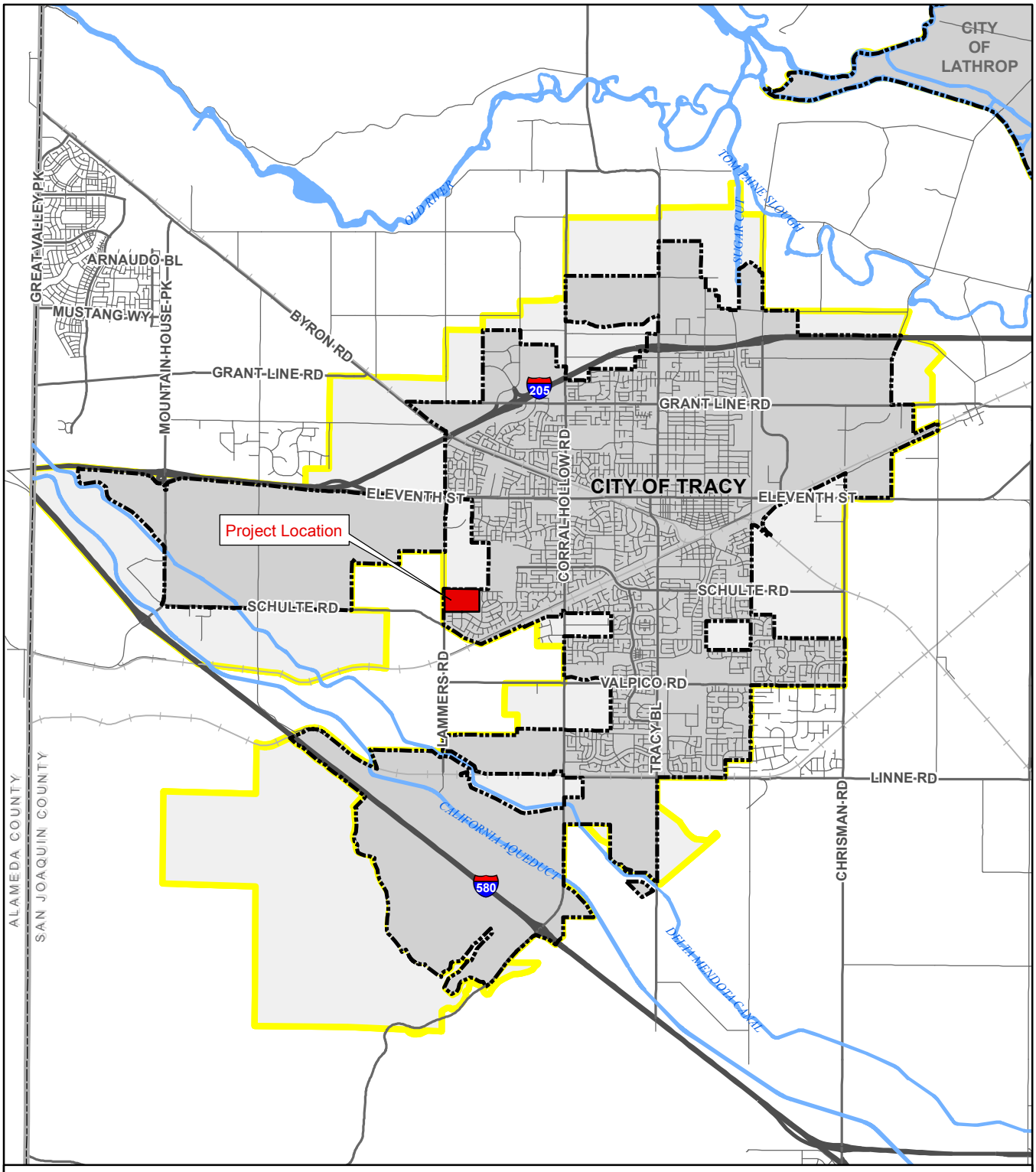

Rocking Horse Project MND
TRACY, CALIFORNIA

Figure 2: Project Vicinity

Legend

- City Boundary
- Sphere of Influence
- Project Location

N

0 0.5 1
Miles

Sources: San Joaquin County GIS. Map date: March 24, 2015.

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ROCKING HORSE PROJECT MND
TRACY, CALIFORNIA

Figure 3: Aerial View of Project Site

Legend

- Project Boundary
- City of Tracy

N

0 250 500

Feet

1:12,000

Sources: San Joaquin County GIS; ArcGIS Online World Imagery Map Service. Map date: November 9, 2015.

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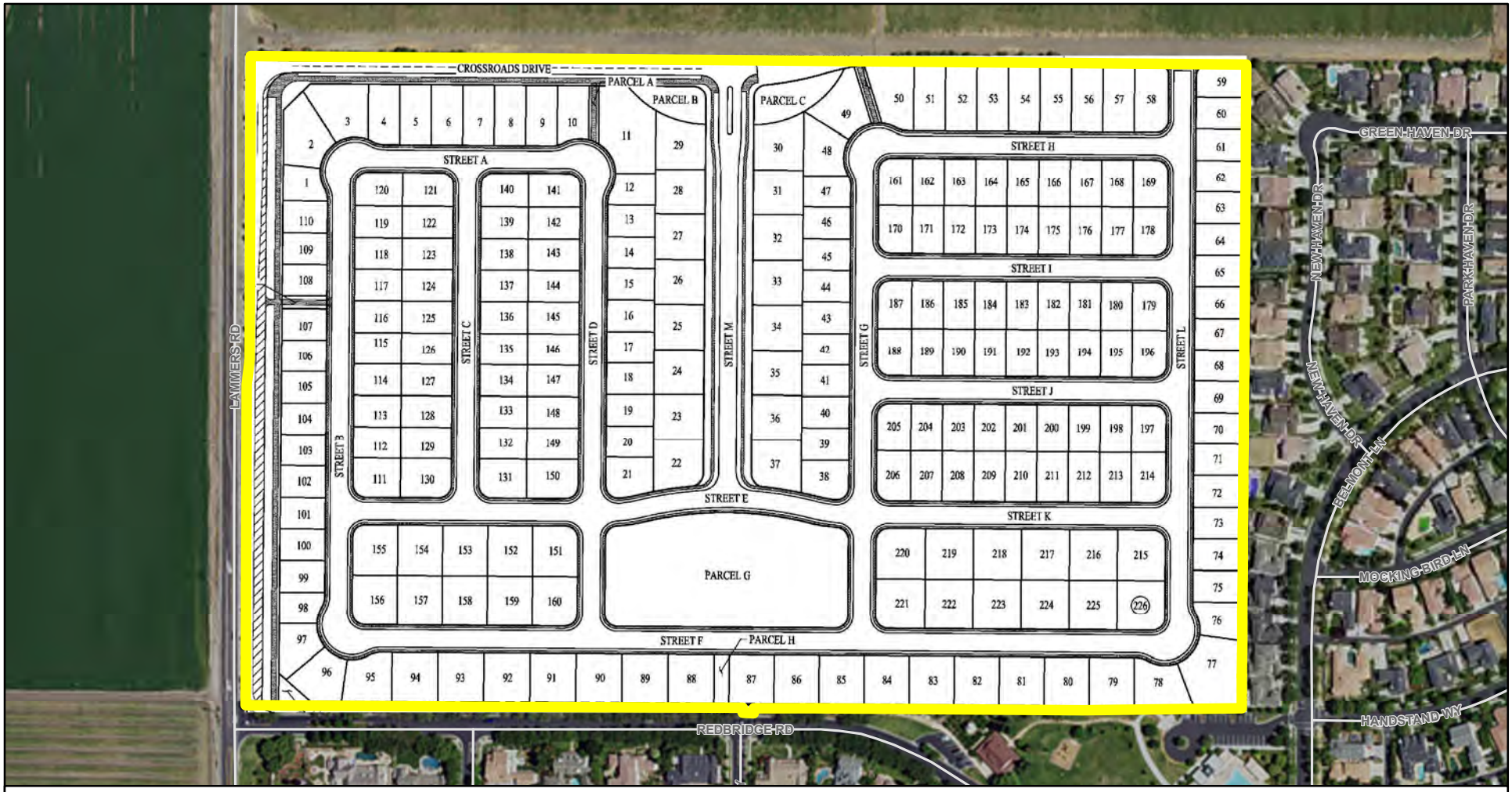

ROCKING HORSE PROJECT MND
TRACY, CALIFORNIA

Figure 4: Site Plan

Legend

Project Boundary

N

0 150 300

Feet

1:3,600

Sources: Carlson, Barbee & Gibson, Inc.; San Joaquin County GIS; ArcGIS Online World Imagery Map Service. Map date: November 9, 2015.

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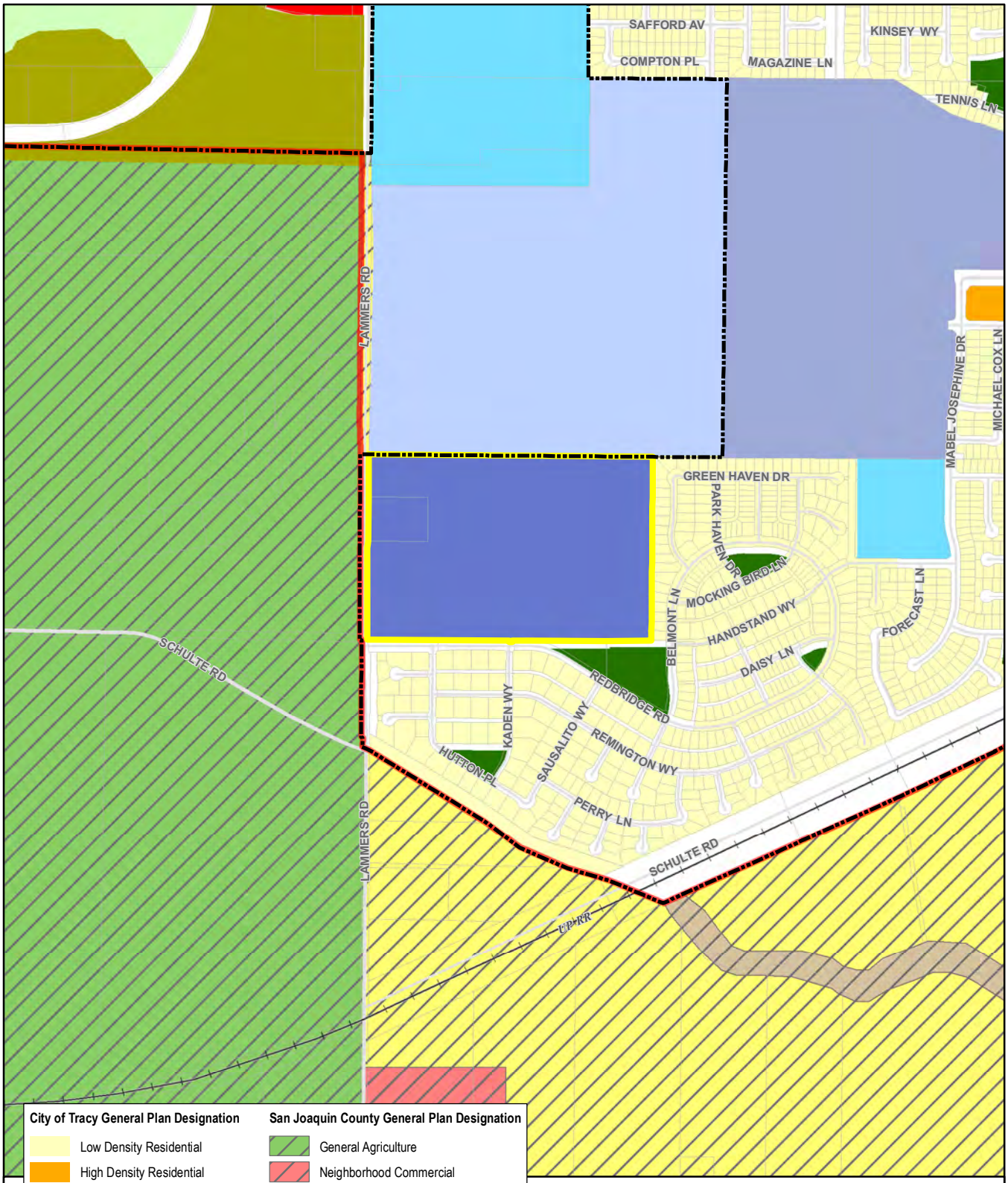

ROCKING HORSE PROJECT MND
TRACY, CALIFORNIA

Figure 5: General Plan Land Use Designations

Sources: San Joaquin County GIS; City of Tracy GIS. Map date: November 9, 2015..

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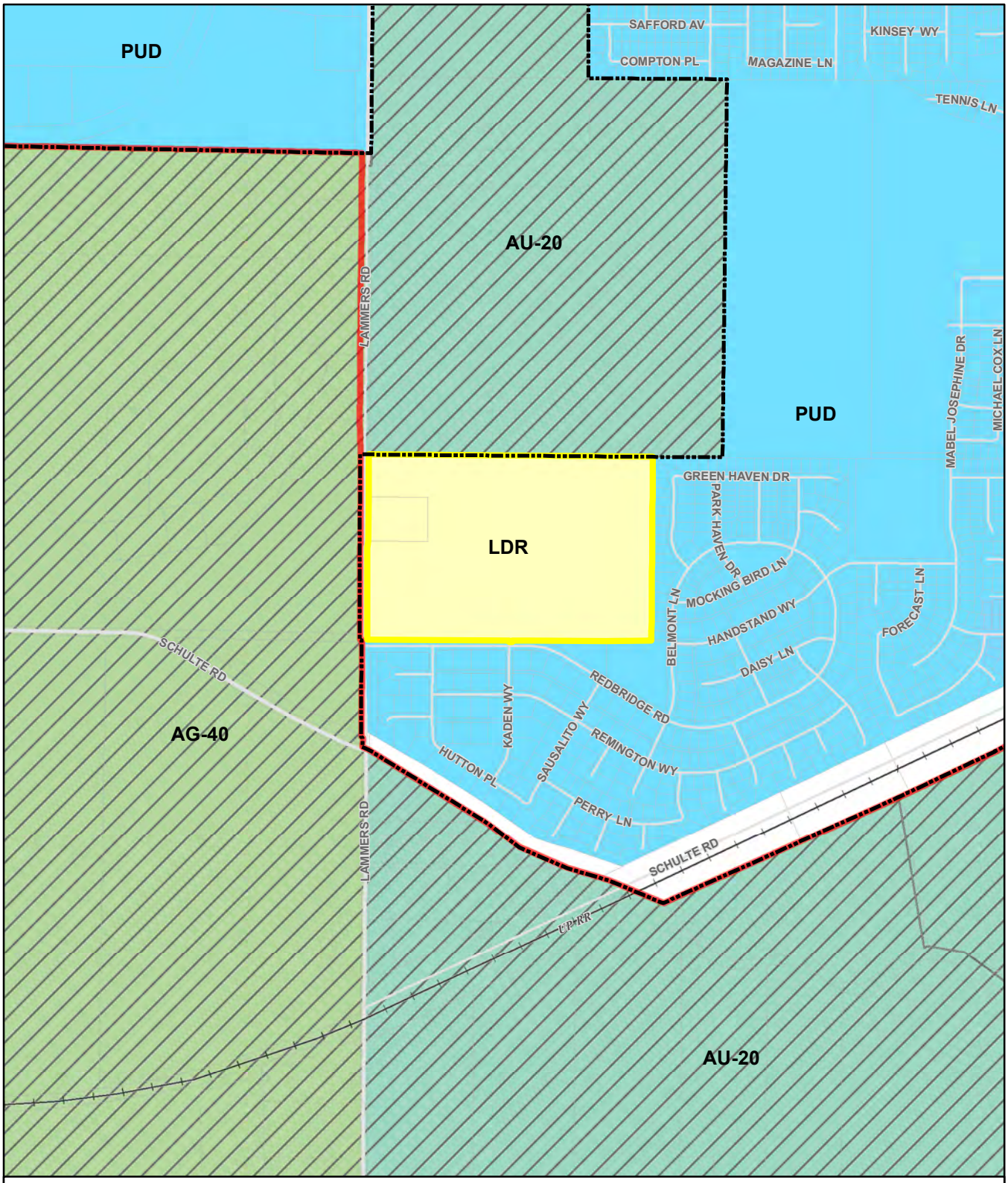

City of Tracy Zoning Designations

- LDR - Low Density Residential
- PUD - Planned Urban Development

San Joaquin County Zoning Designations

- AG-40
- AU-20

Planning Boundaries

- Project Boundary
- City of Tracy
- Sphere of Influence

ROCKING HORSE PROJECT MND
TRACY, CALIFORNIA

Figure 6: Zoning Designations

N 0 250 500 Feet

Sources: San Joaquin County GIS; City of Tracy GIS. Map date: November 9, 2015.

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forest Resources		Air Quality
	Biological Resources		Cultural Resources		Geology/Soils
	Greenhouse Gasses		Hazards and Hazardous Materials		Hydrology/Water Quality
	Land Use/Planning		Mineral Resources		Noise
	Population/Housing		Public Services		Recreation
	Transportation/Traffic		Utilities/Service Systems		Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

EVALUATION INSTRUCTIONS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9) The explanation of each issue should identify:
    a) The significance criteria or threshold, if any, used to evaluate each question; and
    b) The mitigation measure identified, if any, to reduce the impact to less than significance

EVALUATION OF ENVIRONMENTAL IMPACTS:

In each area of potential impact listed in this section, there are one or more questions which assess the degree of potential environmental effect. A response is provided to each question using one of the four impact evaluation criteria described below. A discussion of the response is also included.

- Potentially Significant Impact. This response is appropriate when there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries, upon completion of the Initial Study, an EIR is required.
- Less than Significant With Mitigation Incorporated. This response applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.
- Less than Significant Impact. A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary, although they may be recommended to further reduce a minor impact.
- No Impact. These issues were either identified as having no impact on the environment, or they are not relevant to the Project.

ENVIRONMENTAL CHECKLIST

This section of the Initial Study incorporates the most current Appendix "G" Environmental Checklist Form, contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 18 environmental topic areas.

I. AESTHETICS -- WOULD THE PROJECT:

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Have a substantial adverse effect on a scenic vista?			*X*	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			*X*	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		*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 designated scenic vistas located on or adjacent to the Project site. The Project site currently consists primarily of agricultural lands. Agricultural lands provide visual relief from urban and suburban developments, and help to define the character of a region, and the loss of agricultural lands can impact on the overall visual character and quality of a region.

The proposed project uses on site are consistent and compatible with the surrounding land uses. Lands to the south and east of the Project site consist of low-density single-family residential uses. Further west and to the north of the Project site are agricultural uses.

Implementation of the proposed project would provide for additional residential development in an area of the City that is adjacent to single-family housing development. 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 extensive 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 require the construction of 9 foot sound wall along South Lammers Road (as outlined in Mitigation Measure 14). The specific location and design of the sound walls have not been determined, however, the project is subject to the City of

Tracy's development and design review criteria, which would ensure that the sound wall and related improvements are visually compatible with the surrounding land uses.

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 are used for residential purposes. Furthermore, the General Plan designates this area as Urban Reserve, which is intended for areas where residential expansion is expected through build out of the General Plan. The loss of Agricultural lands that provide visual character and help define the visual quality of the region was taken into account by the City's General Plan and subsequent EIR. Development permitted under the General Plan was determined to result in a significant impact to the existing visual identity and character of the City, due to the development allowed under the General Plan. Development and the subsequent removal of farmland 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 loss of agricultural land and related visual resource impacts resulting from adoption of the General Plan and certification of the General Plan EIR. The project is consistent with the adopted Statement of Overriding Considerations, and uses established by the General Plan. Implementation of the proposed project would introduce a low-density residential development to the project area that would be generally consistent with the surrounding residential developments, and consistent with the intended uses established by the Tracy General Plan. 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 Designated 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 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 Project site lies approximately 2.5 miles northeast of the I-580 scenic highway. However, the Project site is not visually prominent throughout the I-580 corridor. The Project site is consistent with the surrounding residential uses and consists of single story and two story residential structures. The structures proposed by the project present no more visual prominence within the development area relative to the existing development. Background views would remain roughly equal to existing conditions. The Project site is approximately 11 miles southeast of the I-5 scenic highway and is not visible from the Project site.

The Project site is not a prominent visual feature from any of the above-referenced scenic highways. Development of the proposed project would not result in the removal of any rock outcroppings, or buildings of historical significance, and would not result in substantial changes to the viewsheds from the designated scenic highways in the vicinity of the City of Tracy. Therefore, this is a **less than significant** impact.

Response c): Less than Significant with Mitigation. The proposed project would add additional residential uses to an area that currently contains numerous residential uses. The proposed project would be visually compatible with the surrounding residential uses and would not significantly degrade the existing visual quality of the surrounding area. Site specific characteristics would change the site from agricultural uses to residential uses. However, taking into account the scope and location of the proposed project relative to the surrounding area uses, this would not greatly alter the area's overall visual characteristics.

Tree removal is anticipated to occur around the perimeter of the Project site. A tree report for the Project site was prepared by a certified arborist (James R. Clark, Ph.D. from Hort Science, Inc.) in July 2015. The study included evaluation of tree health and the structural condition for assessment of trees suitable for preservation. Trees were surveyed in February 2015. The report determined that all Project site trees had been planted as part of landscape development, and no trees appeared to be indigenous to the site.

One hundred twenty-eight (128) trees were evaluated, representing 20 species. Trees were located in two areas of the Project site. Sixty-nine trees were located along S. Lammers Road, while 59 trees surrounded the residential site.

Based on the assessment of the proposed plan and evaluation of the 128 trees, 65 trees were recommend for preservation, and 63 trees for removal. All trees proposed for retention are located along S. Lammers Road. All trees recommended for removal are either surrounding the residence or associated with a new road on the north side of the Project site.

Tree removal may represent a visual impact, in that it would increase views of the Project site from the surrounding roadways and remove a visual pleasant feature of the site. Additionally, the project is subject to the City of Tracy's development and design review criteria, which would ensure that the exterior facades of the proposed residential structures, landscaping, streetscape improvements and exterior lighting improvements are compatible with the surrounding land uses.

The following mitigation measure would ensure the visually prominent tree line would be preserved. As future expansion and improvements are made to South Lammers Road, trees located adjacent to the roadway may be removed. However, the proposed project includes extensive planting of new trees and the retention of existing trees where feasible. Therefore, this impact is considered **less than significant** with mitigation incorporated.

MITIGATION MEASURES

Mitigation Measure 1: *As required by the Project's Arborist Report (HortScience, Inc., July 2015), the following tree preservation standards and design requirements shall apply to the proposed project during and prior to construction activities.*

Design requirements

- *Allow the Consulting Arborist the opportunity to review project plans, including but not limited to, site, grading, drainage and landscape plans.*

- *Use only herbicides safe for use around trees and labeled for that use, even below pavement.*
- *Design irrigation systems so that no trenching will occur within the TREE PROTECTION ZONE.*

Preconstruction standards for demolition and treatment

- *Prepare a site work plan which identifies access and haul routes, construction trailer and storage areas, etc.*
- *Establish a Tree Protection Zone around each tree to be preserved. For design purposes, the Tree Protection Zone shall be 20' from the trunk in all directions. No grading, excavation, construction or storage of materials shall occur within that zone.*
- *Install protection around all trees to be preserved. Stack and secure hay bales 6 high around tree trunks. As an alternative, employ chain link with posts sunk into the ground. No entry is permitted into a tree protection zone without permission of the project manager.*
- *Trees to be removed shall be felled so as to fall away from Tree Protection Zone and avoid pulling and breaking of roots of trees to remain. If roots are entwined, the consultant may require first severing the major woody root mass before extracting the trees, or grinding the stump below ground.*
- *Trees to be retained may require pruning to provide clearance and or correct defects in structure. All pruning is to be performed by an ISA Certified Arborist or Certified Tree Worker and shall adhere to the latest editions of the ANSI Z133 and A300 standards as well as the ISA Best Management Practices for Tree Pruning. Pruning contractor shall have the C25/D61 license specification.*

Tree protection standards during construction

- *Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.*
- *Any grading, construction, demolition or other work that is expected to encounter tree roots should be monitored by the Consulting Arborist.*
- *If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.*
- *Fences have been erected to protect trees to be preserved. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the project manager.*
- *Any additional tree pruning needed for clearance during construction must be performed by a qualified arborist and not by construction personnel.*
- *All trees shall be irrigated on a schedule to be determined by the Consulting Arborist. Each irrigation shall wet the soil within the Tree Protection Zone to a depth of 30 inches.*

Tree standards for re-planting

Trees removal associated with road widening activities along South Lammers Road shall be replaced at a 1:1 ratio with trees of similar aesthetic, and biological value as deemed appropriate by the Consulting Arborist.

Response d): Less than Significant with Mitigation. 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 new residential structures 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 proposed structures, and park areas within the site. The City of Tracy Standard Plan #140 establishes street light standards, and requirements for light illumination. Exterior lighting on new projects is also regulated by 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 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 following mitigation measure requires the preparation of a lighting plan, which must demonstrate that exterior project lighting has been designed to minimize light spillage onto adjacent properties to the greatest extent feasible. The implementation of the following mitigation measure would reduce this impact to a **less than significant** level.

MITIGATION MEASURES

Mitigation Measure 2: *A lighting plan shall be prepared and approved prior to the issuance of a building permit and installation of the project's exterior lighting. The lighting plan shall demonstrate that the exterior lighting systems have been designed to minimize light spillage onto adjacent properties to the greatest extent feasible. 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:

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

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation. The Project site contains 59.1 acres of soils that are considered Prime Farmland soils by the California Department of Conservation Farmland Mapping and Monitoring Program and the USDA Soil Conservation Service.[1] Figure 7 identifies important farmlands, as mapped by the USDA, on and near the Project site. The Project site is suitable for agricultural production and agricultural operations. The Project site has been historically used for agricultural production including past orchard uses and more recent grass crop alfalfa production.

The potential environmental impacts from development of the site for urban uses and the associated removal of prime farmland soil for agricultural use were considered and addressed in the City of Tracy General Plan and Final EIR. There, it was determined that buildout of the General Plan, including development of the Project site, would result in the conversion of Prime Farmland, Unique Farmland and Farmland of Statewide Importance to urban uses. The General Plan Draft EIR found this to be a significant and unavoidable impact. On February 1, 2011 the Tracy City Council adopted a Statement of Overriding Considerations (Resolution 2011-028) for the loss of prime agricultural land resulting from adoption of the Plan and EIR, and provided mitigation measures for the agricultural land lost to development in the City of Tracy's urbanized areas. Mitigation measures included the implementation of a "Right to Farm" ordinance by the City (Ord. 10.24 et seq.), intended to preserve and protect existing agricultural operations within the

[1]http://maps.conservation.ca.gov/ciff/ciff.html

incorporated City, and participation in the City's agricultural mitigation fee program (Tracy Municipal Code, Chapter 13.26).

The proposed project is identified as Urban Reserve, which is intended for future urban land uses in the Tracy General Plan. However any development under the Urban Reserve designation requires a General Plan Amendment to establish land use designations for each building site. The proposed project is consistent with the overriding considerations that were adopted for the General Plan and the established mitigation measures under that Plan. Under this framework, the Project applicant is required to participate in the City's agricultural mitigation fee program by paying the established fees to the City on a per-acre basis for the loss of important farmland. Fees paid toward the City's program are collected and distributed to the Central Valley Farmland Trust, and shall be used to fund conservation easements on comparable or better agricultural lands to provide compensatory mitigation. As such, implementation of the proposed project would not create new impacts over and above those identified in the General Plan Final EIR, nor significantly change previously identified impacts. Therefore, with implementation of the following mitigation measure, this potentially significant impact would be reduced to a **less than significant impact**.

MITIGATION MEASURES

Mitigation Measure-3: *Prior to the conversion of important farmland on the Project site, the project applicant shall participate in the City's agricultural mitigation fee program by paying the established fees on a per-acre basis for the loss of important farmland. Fees paid toward the City's program shall be used to fund conservation easements on comparable or better agricultural lands to provide compensatory mitigation.*

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. Therefore, implementation of the proposed project would not conflict with a Williamson Act Contract. The Project site is currently zoned Low Density Residential by the City's Zoning Map. As such, the proposed project would not conflict with any agricultural zoning or Williamson Act Contract. There is **no impact**.

Responses c) and d): No Impact. The Project site is located in an area consisting of residential development and agricultural uses. Trees are present within the Project site, however these trees are ornamental in nature. 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): Less than Significant. As described under Responses (a) above, the proposed project is currently used for agricultural purposes, but is it not designated or zoned for agricultural uses. There are agricultural lands and operations on and adjacent to the Project site. Development of urban uses and the subsequent removal of prime farmland soil for agricultural use 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 loss of prime agricultural land resulting from adoption of the General Plan and certification of the General Plan EIR.

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. As such, implementation of the proposed project would not create new impacts over and above those identified in the General Plan Final EIR, nor significantly change previously identified impacts. Any off site conversion of farmland near the Project site has previously been analyzed by the Tracy General Plan EIR. Furthermore, a "Right to Farm" ordinance was adopted by the City (Ord. 10.24 et seq.), and is intended to preserve and protect existing agricultural operations within the incorporated City.

The proposed project is required to participate in the City's agricultural mitigation fee program by paying the established fees on a per-acre basis for the loss of important farmland. Fees paid toward the City's program shall be used to fund conservation easements on comparable or better agricultural lands to provide compensatory mitigation. The City will ensure the preservation of local farmland resources, thus the implementation of the proposed Project would result in a **less than significant impact**. No additional mitigation is required.

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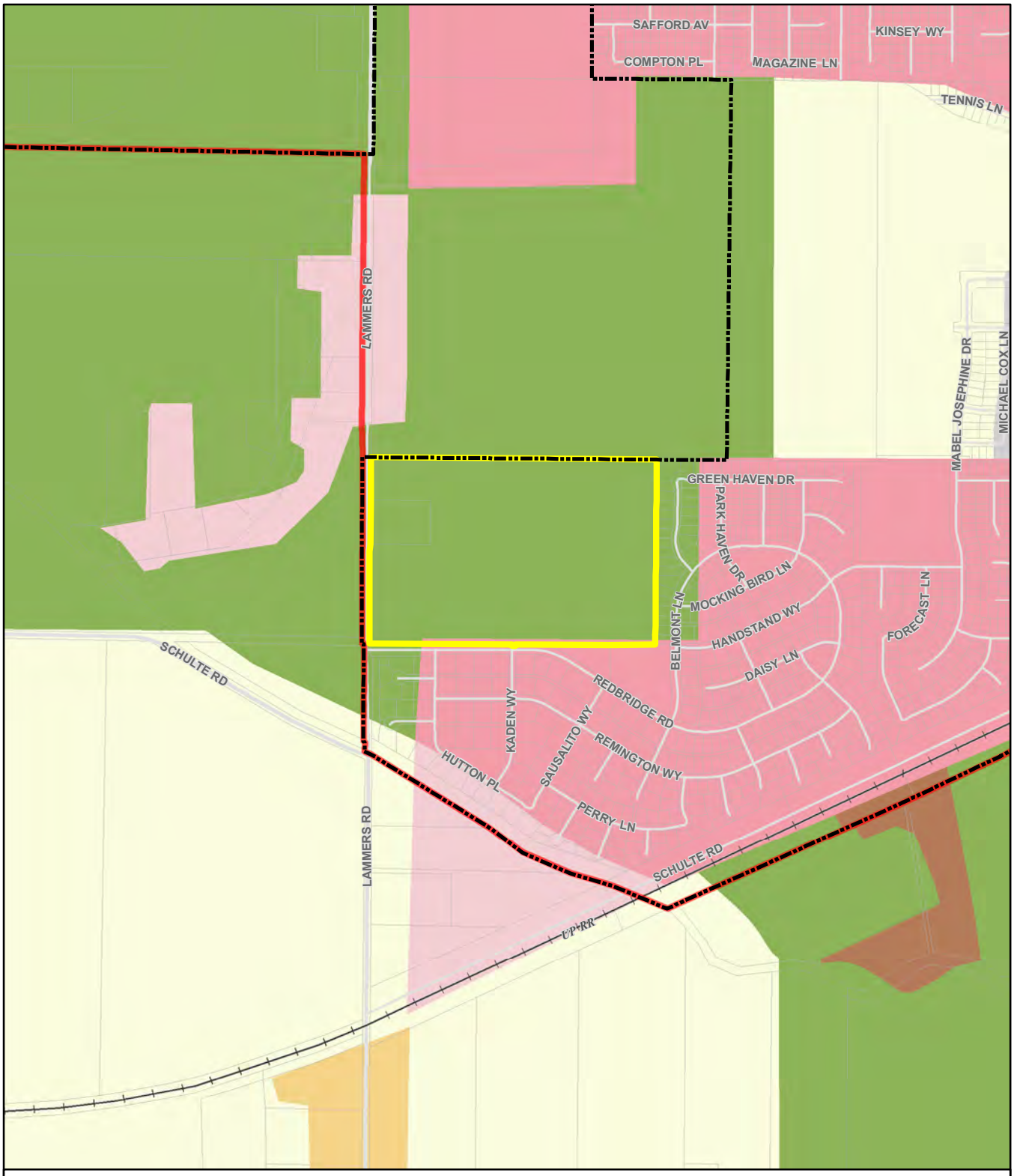

ROCKING HORSE PROJECT MND
TRACY, CALIFORNIA

Figure 7: Important Farmlands

Sources: California Department of Conservation Farmland Mapping and Monitoring Program, San Joaquin County 2012; San Joaquin County GIS; City of Tracy GIS. Map date: November 9, 2015.

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III. AIR QUALITY -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?		X		
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X		
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		X		
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

EXISTING SETTING

The Project site is located within the boundaries of the San Joaquin Valley Air Pollution Control District (SJVAPCD). This agency is responsible for monitoring air pollution levels and ensuring compliance with federal and state air quality regulations within the San Joaquin Valley Air Basin (SJVAB) and has jurisdiction over most air quality matters within its borders.

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b), c): Less than Significant with Mitigation. 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 Emissions: The proposed project is larger in scope and size than the SJVAPCD's Small Project Analysis Level (SPAL), therefore, a quantification of the emissions of ROG, NOx, PM_{10}, and $PM_{2.5}$ that will be emitted by project construction has been performed. The California Emission Estimator Model (CalEEMod) TM (v.2013.2.2) was used to estimate construction emissions for the proposed project.

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 associated improvements such as supporting underground infrastructure, water, sewer, and electrical lines.

Construction activities that could generate dust and vehicle emissions are primarily related to grading and other ground-preparation activities in order to prepare the Project site for the construction of residential areas.

The SJVAPCD has established construction related emissions thresholds of significance as follows: 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM_{10}) and 15 tons per year particulate matter of 2.5 microns or less in size ($PM_{2.5}$). If the project's emissions will exceed the SJVAPCD's threshold of significance for construction-generated emissions as outlined in the SJVAPCD's *Guidance for Assessing and Mitigating Air Quality Impacts* (2015), the project will have a significant impact on air quality and all feasible mitigation are required to be implemented to reduce emissions.

TABLE 1: CONSTRUCTION EMISSIONS (UNMITIGATED)

	ROG	***NOx***	***Fugitive PM10***	***Exhaust PM10***	***PM10 Total***	***Fugitive PM2.5***	***Exhaust PM2.5***	***PM2.5 Total***
Threshold	**≤ 10 tons/year**	**≤ 10 tons/year**	**--**	**--**	**≤ 15 tons/year**	**--**	**--**	**≤ 15 tons/year**
Annual (tons/year)								
2016	0.6838	6.9509	0.8945	0.3678	1.2623	0.4115	0.3405	0.7520
2017	0.4680	3.7524	0.1042	0.2368	0.3410	0.0281	0.2223	0.2504
2018	0.4069	3.3235	0.1046	0.1999	0.3044	0.0282	0.1878	0.2160
2019	5.1963	1.3464	0.0379	0.0771	0.1151	0.0102	0.0725	0.0827
Exceed Threshold	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**

Source: Cal EEMod Version: CalEEMod.v2013.2.2

As shown in Table 1 above, annual emissions do not exceed the SJVAPCD annual thresholds of significance. Therefore, construction-related emissions will result in a less than significant impact to air quality. However, regardless of emission quantities, the SJVAPCD requires construction related mitigation in accordance with their rules and regulations. Table 2 below shows emissions reductions with project mitigation incorporated.

TABLE 2: CONSTRUCTION EMISSIONS (MITIGATED)

	ROG	*NOx*	*Fugitive PM10*	*Exhaust PM10*	*PM10 Total*	*Fugitive PM2.5*	*Exhaust PM2.5*	*PM2.5 Total*
Threshold	**≤ 10 tons/year**	**≤ 10 tons/year**	**--**	**--**	**≤ 15 tons/year**	**--**	**--**	**≤ 15 tons/year**
Annual (tons/year)								
2016	0.6838	6.9509	0.4334	0.3678	0.8012	0.1935	0.3405	0.5340
2017	0.4680	3.7524	0.1042	0.2368	0.3410	0.0281	0.2223	0.2504
2018	0.4069	3.3235	0.1046	0.1999	0.3044	0.0282	0.1878	0.2160
2019	5.1963	1.3464	0.0379	0.0771	0.1151	0.0102	0.0725	0.0827
Exceed Threshold	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**
% Reduction	**0**	**0**	**40.41**	**0.00**	**22.8**	**45.61**	**0.00**	**16.76**

Source: CalEEMod Version: CalEEMod.v2013.2.2

As shown in Table 2, mitigation measures accounted for a 35.36 percent reduction in Fugitive PM_{10}, and an 18.94 percent reduction in total PM_{10}. Fugitive $PM_{2.5}$ would be reduced 41.76 percent while total $PM_{2.5}$ would be reduced 13.81 percent.

Implementation of the following mitigation measures in addition to compliance with all applicable measures from SJVAPCD Rule VIII would ensure that the project would have a **less than significant impact** related to construction emissions.

MITIGATION MEASURES

Mitigation Measure 4*: 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 project applicant shall comply with all applicable APCD requirements prior to commencement of grading activities.*

Mitigation Measure 5*: The following mitigation measures, 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 two-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 two-times/day or whenever visible dust is capable of drifting from the site or approaches 20 percent opacity.*
- *Reduce speed on unpaved roads to less than 5 miles per hour.*
- *Reduce the amount of disturbed surface area at any one time pursuant to the scope of work identified in approved and permitted plans.*
- *Restrict vehicular access to the area to prevent unlawful entry to disturbed areas and limit unnecessary onsite construction traffic on disturbed surfaces. Restriction measures may include fencing or signage as determined appropriate by the City.*

- *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 this mitigation shall occur during all grading or site clearing activities. The SJVAPCD shall be responsible for monitoring.

Operational -Related Emissions

For the purposes of this operational air quality analysis, actions that violate Federal standards for criteria pollutants (i.e., primary standards designed to safeguard the health of people considered to be sensitive receptors while outdoors and secondary standards designed to safeguard human welfare) are considered significant impacts. Additionally, the SJVAPCD has established operations related emissions thresholds of significance as follows: 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), and 15 tons per year particulate matter of 10 microns or less in size (PM_{10}) and 15 tons per year particulate matter of 2.5 microns or less in size (PM2.5). If the project's emissions will exceed the SJVAPCD's threshold of significance for operational-generated emissions, the 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.

The Basin is classified as a nonattainment area for ozone. In order to achieve the Federal and State standards of ozone, it is necessary to regulate ROG and NOx, which contribute to the formation of ozone. This includes both direct and indirect emissions. As shown in Table 3 below, annual emissions of ROG, NOx, and PM_{10} do not exceed the SJVAPCD annual thresholds of significance.

TABLE 3: OPERATIONAL PROJECT GENERATED EMISSIONS

	ROG		***NOx***		***PM_{10}***		***$PM_{2.5}$***	
Threshold	**≤ 10 tons/year**		**≤ 10 tons/year**		**≤ 15 tons/year**		**≤ 15 tons/year**	
Category	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated	Unmitigated	Mitigated
Area	3.2362	2.0317	0.1979	0.0195	1.8004	0.0161	1.8004	0.0160
Energy	0.0392	0.0344	0.3348	0.2939	0.0271	0.0238	0.0271	0.0238
Mobile	1.2994	1.2691	3.9596	3.7369	2.4141	2.2478	0.6895	0.6422
Total	**4.5748**	**3.3353**	**4.4923**	**4.0502**	**4.2416**	**2.2876**	**2.5170**	**0.6820**
%Reduction	**27.09**		**9.84**		**46.07**		**72.91**	
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod: CalEEMod.v2013.2.2

In addition to the tons/year thresholds cited above, the SJVAPCD has thresholds applicable to CO emissions that require projects to perform localized CO modeling.

The SJVAPCD recommends utilizing a screening approach for analyzing CO concentrations to determine if dispersion modeling is warranted. The methodology provides lead agencies with a conservative indication of whether project-generated vehicle trips will result in the generation

of CO emissions that contribute to an exceedance of the thresholds of significance. The recommended screening criteria are divided into two tiers, as described below.

First Tier: The proposed project will result in a less-than-significant impact to air quality for local CO if:

- Traffic generated by the proposed project will not result in deterioration of intersection level of service (LOS) to LOS E or F; and
- The project will not contribute additional traffic to an intersection that already operates at LOS of E or F.

As described in greater detail under the traffic impact analysis section in this document, the proposed project would contribute traffic to an intersection operating at level of service (LOS) E or F, therefore the first tier is not met

The screening approach requires that if the first tier of screening criteria is not met then the second tier of screening criteria shall be examined.

Second Tier: If all of the following criteria are met, the proposed project will result in a less-than-significant impact to air quality for local CO.

- The project will not result in an affected intersection experiencing more than 31,600 vehicles per hour;
- The project will not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway; or other locations where horizontal or vertical mixing of air will be substantially limited; and
- The mix of vehicle types at the intersection is not anticipated to be substantially different from the County average (as identified by the EMFAC or CalEEMod models).

The proposed project screens out under the second tier because it meets all three criteria. First, the intersections that will operate at LOS E or F under Cumulative Plus Project conditions will only experience a Peak Hour traffic of up to 2,285 vehicles per hour during the peak hour. The maximum of 2,285 vehicles per hour is significantly below the 31,600 vehicles per hour threshold. Secondly, these intersections do not include a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway; or other locations where horizontal or vertical mixing of air will be substantially limited. Lastly, the mix of vehicle types at these intersections and those stemming from the proposed residential project are not anticipated to be substantially different from the County average. As such, the proposed project screens out satisfactorily under tier 2. Therefore, localized CO modeling is not warranted for this project.

Rule 9510 Indirect Source Review

District Rule 9510 requires developers of large residential, commercial and industrial projects to reduce smog-forming (NOx) and particulate (PM_{10} and $PM_{2.5}$) emissions generated by their

projects. The Rule applies to projects which, upon full build-out, will include 50 or more residential units. Project developers are required to reduce:

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

The project would be an indirect source of air pollutants, in that it would attract and cause an increase in vehicle trips in the region. Table 4shows the new auto emissions from vehicle trips that would result from the proposed project. The San Joaquin Valley Air Pollution Control District has established a threshold of significance for ozone precursors of 10 tons per year, and 15 tons per year has been used to represent a significant impact for PM_{10}.

TABLE 4: TOTAL GENERATED MOBILE EMISSIONS AT FULL BUILDOUT (MITIGATED)

	EMISSIONS (TONS/YEAR)						
	ROG	NO_x	CO	SO2	PM_{10}	$PM_{2.5}$	CO2e
Mobile Source Project Emissions	1.2691	3.7369	13.864	0.0353	2.2478	0.6422	2,525.1912
SJVAPCD Threshold	10	10	100	--	15	15	--
Exceed Threshold	**No**	**No**	**No**	**N/A**	**No**	**No**	**N/A**

Source: CalEEMod: CalEEMod.v2013.2.2

As shown in Table 4 above, project generated emissions are below the SJVAPCD thresholds for ROG, NOx PM_{10} and $PM_{2.5}$. Additionally, the SJVAPCD has established thresholds of significance for criteria pollutant emissions, which are based on District New Source Review (NSR) requirements. Projects with emissions below the thresholds of significance for criteria pollutants would be determined to "not conflict or obstruct implementation of the District's air quality plan." As such, the project would result in **less than significant** air quality impacts, and would not conflict or obstruct implementation of the District's air quality plan. However, regardless of the emissions totals presented above, the project is still subject to the requirements of SJVAPCD Rule 9510, as described above.

MITIGATION MEASURES

Mitigation Measure 6: *Prior to the issuance of any building permits, the project applicant shall comply with 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. The project applicant shall provide verification of compliance to the City prior to the issuance of any building permits.

Response d): Less than Significant. Sensitive receptors are those parts of the population that can be severely impacted by air pollution. Sensitive receptors include children, the elderly, and the infirm. In addition to the existing residences located adjacent to the Project site, there are two schools located in close proximity to the Project site. John C. Kimball High School is located approximately 0.35 miles north of the Project site, and George Kelly Elementary School located approximately 0.26 miles east of the Project site.

Implementation of the proposed project would not expose these sensitive receptors to substantial pollutant concentrations. Air emissions would be generated during the construction phase of the project. The construction phase of the project would be temporary and short-term, and the implementation of Mitigation Measures 4, 5, and 6 would greatly reduce pollution concentrations generated during construction activities.

Operation of the proposed project would result in emissions primarily from vehicle trips. As described under Response a) – c) above, the proposed project would not generate significant concentrations of air emissions. Impacts to sensitive receptors would be negligible and this is a **less than significant** impact.

Response e): Less than Significant. Operation of the proposed project would not generate notable odors. The proposed project is a low density development, which is compatible with the surrounding land uses. Occasional mild odors may be generated during landscaping maintenance (equipment exhaust), but the project would not otherwise generate odors. This is a **less than significant** impact and no mitigation is required.

IV. BIOLOGICAL RESOURCES -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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		

BACKGROUND

A biological resources reconnaissance of the Project site was performed by Zander Associates on February 21, 2014. No suitable habitat for rare, threatened, endangered or otherwise special status plants was observed, nor did they anticipate the need for further seasonal surveys to confirm their absence. Common rodents, reptiles and other animals found in agricultural fields could occur on the site, but the absence of suitable habitat conditions would limit extensive use. No instances of any activity by ground squirrels (*Spermophilus beecheyi*) or other burrowing animals were observed during the field reconnaissance. Special status wildlife species known from the general vicinity such as the California tiger salamander (*Ambystoma californiense*), San Joaquin kit fox (*Vulpes macrotis mutica*), California red-legged frog (*Rana draytonii*), and burrowing owl (*Athene cunicularia*) are unlikely to occur on the site because of ongoing cultivation, the lack of habitat, and proximity to urban/suburban uses. Although the likelihood for the occurrence of any special status plant or wildlife species on the site is extremely low,

participation in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) is recommended for all new projects on previously undeveloped land in Tracy.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation.

Special-status invertebrates: Special status invertebrate species that occur within the San Joaquin County region include: longhorn fairy shrimp, vernal pool fairy shrimp, and mid valley 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. The Project site does not contain essential, or suitable habitat for these special status invertebrates. Implementation of the proposed project would have a **less than significant** impact on these species. No mitigation is necessary.

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 is 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. The Project site does not contain essential or suitable habitat for these special status reptiles and amphibians. Implementation of the proposed project would have a **less than significant** impact on these species. No mitigation is necessary.

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. The Project site does not contain suitable habitat for special-status plant species, and no special-status plant species were observed during visits to the Project site. Implementation of the proposed project would have a **less than significant** impact on these species. No mitigation is necessary.

Special-status bird species: Special-status bird species 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 Game (CDFG) and the Migratory Bird Treaty Act (MBTA). Additionally, Swainson's hawk foraging habitat is protected by the CDFG. 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. There are numerous documented occurrences of Swainson's hawk within ten miles of the Project site, with the nearest nesting sites located approximate 8 miles to the northeast of the Project site. Although no nesting sites for this species occur on the Project site, Swainson's hawks are present in the vicinity. The Project site and the surrounding open agricultural habitat could provide foraging opportunities for local Swainson's hawks. There is a row of mixed trees (Eucalyptus, conifer Pine, and Palm varieties) bordering the site to the south and east. These trees are large enough to harbor raptor nests, but do not currently contain any active nesting sites.

Burrowing Owls. Burrowing owls are a California Species of Special Concern and are protected by the CDFG and the MBTA. Burrowing owls forage in open grasslands and shrublands and typically nest in old ground squirrel burrows. Common rodents, other animals found in agricultural fields could occur on the site, but the absence of suitable habitat conditions would limit extensive use. The biological reconnaissance performed by Zander Associates February 21, 2014 did not observe any activity by ground squirrels (*Spermophilus beecheyi*) or other burrowing animals, and noted that Burrowing owl (*Athene cunicularia*) are unlikely to occur on the site because of ongoing cultivation, the lack of habitat and proximity to urban/suburban uses.

The Project site contains suitable, but not high-quality, habitat for burrowing owls. The Project site is adjacent to other lands that are currently undeveloped that offer foraging and roosting habitat for wintering or breeding owls. However, the burrows are not present on-site are due to the absence of ground squirrels. During the surveys completed by Zander Associates, no burrowing owls or evidence of their presence was detected within the Project site.

Participation in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) is recommended for all new projects on previously undeveloped land in Tracy. Although the likelihood for the occurrence of any special status plant or wildlife species on the site is extremely low, the implementation of the following mitigation measures would ensure that special status plant or wildlife species are protected throughout the region. Impacts to special status plant or wildlife species would be reduced to **less than significant** levels with mitigation.

MITIGATION MEASURES

Mitigation Measure 7: *Prior to commencement of any grading activities, the project proponent shall seek coverage under the SJMSCP to mitigate for habitat impacts to covered special status species. Coverage involves compensation for habitat impacts on covered species through payment of development fees for conversion of open space lands that may provide habitat for covered special status species. These fees are used to preserve and/or create habitat in preserves to be managed in perpetuity. In addition, coverage includes incidental take avoidance and minimization measures for species that could be affected as a result of the proposed project. There are a wide variety of incidental take avoidance and minimization measures contained in the SJMSCP that were developed in consultation with the USFWS, CDFW, and local agencies. The applicability of incidental takes avoidance and minimization measures are determined by SJCOG on a project basis. The process of obtaining coverage for a project includes incidental take authorization (permits) under the Endangered Species Act Section 10(a) and California Fish and Game Code Section 2081. The Section 10(a) permit also serves as a special-purpose permit for the incidental take of those species that are also protected under the MBTA. Coverage under the SJMSCP would fully mitigate all habitat impacts on covered special-status species. The SJMSCP includes the implementation of an ongoing Monitoring Plan to ensure success in mitigating the habitat impacts that are covered. The SJMSCP Monitoring Plan includes an Annual Report process, Biological Monitoring Plan, SJMSCP Compliance Monitoring Program, and the SJMSCP Adaptive Management Plan SJCOG.*

Mitigation Measure 8: *If construction activities occur during the avian breeding season (February 1 – September 31) then the project proponent shall conduct pre-construction surveys to prevent impacts to nesting birds. No more than 15 days prior to the start of construction a bird survey shall be conducted by a qualified biologist to identify any active nests within the Project site or visible from the Project site. If construction stops for a period of 15 days or more during the avian breeding season than an additional bird survey shall be conducted for all special-status birds protected by the federal and state ESA, MBTA and CFGC, including but not limited to those that are documented within a ten-mile radius of the Project site and are known to nest in the region. The biologist shall map all nests that are within, and visible from the Project site. If nests are identified, the biologist shall develop buffer zones around active nests as deemed appropriate in coordination with the CDFW. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored at least twice per week and a report submitted to the City of Tracy and CDFW monthly.*

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. The CNDDB record search did not reveal any documented wildlife corridors or nursery sites on or adjacent to the Project site. Furthermore, field surveys did not reveal any wildlife nursery sites on or adjacent to the Project site. Implementation of the proposed project would have a **less than significant** impact. No mitigation is necessary.

Responses 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 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 California Department of Fish and Game (CDFG), 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, the goals and principles of the SJMSCP include the following:

- Provide a County-wide 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.
- Preserve landowner property rights.
- Provide 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 ESA or the CESA.
- Provide and maintain multiple-use open spaces, which contribute to the quality of life of the residents of San Joaquin County.
- Accommodate 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 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 San Joaquin Council of Governments.

As described under Response (a) the proposed project is subject to participation in the SJMSCP by Mitigation Measure 7. The City of Tracy and the project applicant shall consult with SJCOG and determine coverage of the project pursuant to the SJMSCP. The implementation of Mitigation Measure 7 would ensure that the project complies with the requirements of the SJMSCP, and would not conflict with any applicable habitat conservation plans. Additionally, Mitigation Measure 1 requires the project applicant to prepare a tree protection and replanting plan. The tree protection and replanting plan would ensure project compliance with all applicable City regulations that provide for tree protection. With the implementation of Mitigation Measures 1 and 7, this would be a **less than significant** impact.

MITIGATION MEASURE

Implement Mitigation Measures 1 and 7

V. CULTURAL RESOURCES -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '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 with Mitigation. The City of Tracy General Plan and subsequent EIR does not identify the site as having prehistoric period cultural resources. Additionally, there are no known unique cultural, historical, paleontological or archeological resources known to occur on, or within the immediate vicinity of the Project site. Furthermore, neither the site, nor any structures on the site, are designated as a historical resource as defined by Public Resources Code § 21084.1, or listed in, or eligible for listing in the California Register of Historical Resources.

The site has previously been used for active agricultural uses. No instances of cultural resources or human remains have been unearthed on the Project site, and site visits did not identify any historical, cultural, paleontological, or archeological resources present on 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 a previously unknown cultural and historical resource or human remains. This is considered a **potentially significant** impact.

The implementation of the following mitigation measure 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 measure would reduce this impact to a **less than significant** level.

MITIGATION MEASURES

Mitigation Measure 9*:* If any prehistoric or historic artifacts, human remains or other indications of archaeological or paleontological 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. GEOLOGY AND SOILS -- WOULD THE PROJECT:

	Potentially Significant Impact	***Less Than Significant with Mitigation***	***Less Than Significant Impact***	***No Impact***
a) Expose people or structures to 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 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

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. As described in the Geotechnical Exploration report prepared for the project (Stevens, Ferrone & Bailey, 2014), 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 two nearest earthquake faults zoned as active by the State of California Geological Survey are the Great Valley Fault, located approximately five miles to the west of the site, and the Greenville fault, located approximately 13 miles southwest of the site. The Great Valley fault is a blind thrust fault with no known surface

expression; the postulated fault location has been based on historical regional seismic activity and isolated subsurface information. Figure 8 shows nearby faults in relation to the Project site.

Portions of the Great Valley fault are considered seismically active thrust faults; however, since the Great Valley fault segments are not known to extend to the ground surface, the State of California has not defined Earthquake Fault Hazard Zones around the postulated traces. The Great Valley fault is considered capable of causing significant ground shaking at the site, but the recurrence interval is believed longer than for more distant, strike-slip faults. Further seismic activity can be expected to continue along the western margin of the Central Valley, and as with all projects in the area, the project will be designed to accommodate strong earthquake ground shaking, in compliance with the applicable California building code standards.

Other active faults capable of producing significant ground shaking at the site include the Calaveras, 26 miles southwest; the Hayward fault, 28 miles west; the Ortigalita fault, 31 miles southwest; and the San Andreas Fault, 49 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.

The City reviews all proposed development projects for consistency with the General Plan policies and California Building Code provisions identified above. This review occurs throughout the project application review and processing stage, and throughout plan check and building inspection phases prior to the issuance of a certificate of occupancy.

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

Responses a.iii): 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, 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. The geologic conditions conducive to lateral spreading include gentle surface slope (0.3-5% slope), and liquefiable soils. Based on the results of the exploratory boring, field and laboratory test results performed for the project, and included in the Geotechnical Exploration report, it was found that the potential for ground surface damage at the site resulting from liquefaction is low due to lack of saturated liquefiable soils to the maximum depth explored of 41-1/2 feet. Therefore, impacts related to liquefaction and lateral spreading from project implementation would be **less than significant**.

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 and no mitigation is required.

Response b): Less than Significant with Mitigation. 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 re-vegetating exposed areas. Mitigation Measures 4 and 5 (air quality) require 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, Mitigation Measure 12 would require the implementation of various best management practices (BMPs) and a SWPPP 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 required mitigation measures would reduce these impacts to a **less than significant** level and no additional mitigation is required.

MITIGATION MEASURES

Implement Mitigation Measures 4, 5 and 12

Responses c), d): Less than Significant with Mitigation.

The potential for the project to be exposed to unstable soil conditions resulting from on- or off-site landslide, lateral spreading, and liquefaction are discussed above under Responses a.iii, and a.iv.

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion, and settling 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. To reduce the potential for post-construction distress to the proposed structures resulting from swelling and shrinkage of these materials, the Geotechnical evaluation recommends that proposed structures be supported on a post-tensioned slab foundation system that is designed to reduce the impact of expansive soils. Special design considerations will be required for exterior slabs. Furthermore, the geotechnical evaluation report identified potentially weak and compressible fills located on portions the Project site to depths of about 1-1/2 to 2-1/2 feet below the existing ground surface.

In order to reduce the potential for damaging differential settlement of overlying improvements, the following mitigation measure requires soil evaluations to be performed prior to grading activities and allows for special design characteristics to be required by the City Engineering Department. As such, this potentially significant impact is reduced to a **less than significant** impact.

MITIGATION MEASURES

Mitigation Measure 10. *Expansive materials and potentially weak and compressible fills at the site shall be evaluated by a Geotechnical Engineer during the grading plan stage of development. If highly expansive or compressible materials are encountered, special foundation designs and reinforcement, removal and replacement with soil with low to non-expansive characteristics, compaction strategies, or soil treatment options to lower the expansion potential shall be incorporated through requirements imposed by the City Engineering Department.*

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.

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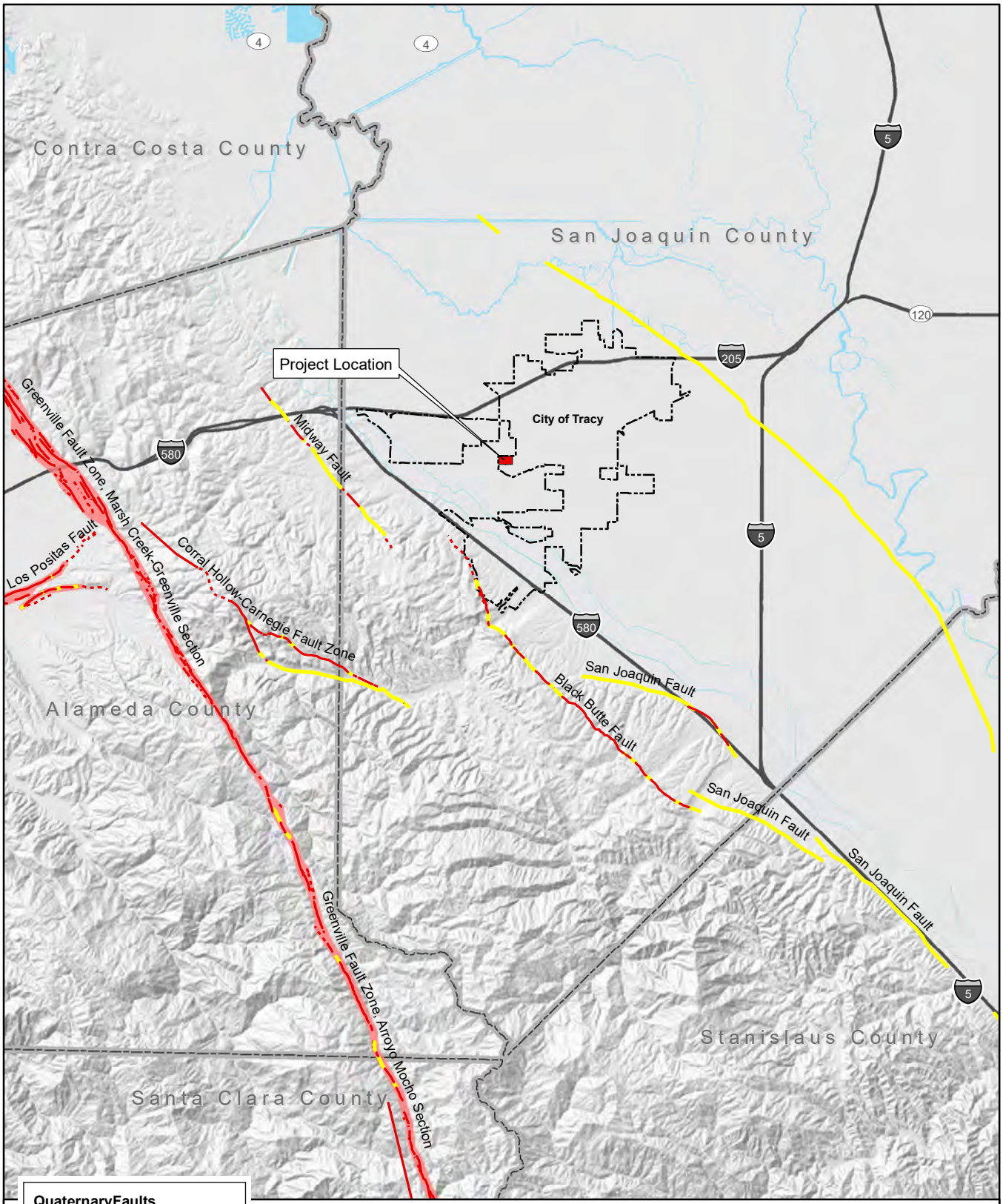

ROCKING HORSE PROJECT MND
TRACY, CALIFORNIA

Figure 8: Fault Zones

Data sources: San Joaquin County GIS; ESRI's StreetMap North America; USGS and California Geologic Survey, 2006, Quaternary fault and fold database for the Unites States, accessed October 14,5, 2014. from USGS web site: http//earthquakes.usgs.gov/regional/qfaults/. Map date: November 9, 2015. (RockingHorse_Fig8_FaultZones_151109)

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

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XII. GREENHOUSE GAS EMISSIONS – WOULD THE PROJECT:

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

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 (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and ozone (O_3). Several classes of halogenated substances that contain fluorine, chlorine, or bromine are also greenhouse gases, but they are, for the most part, solely a product of industrial activities. Although the direct greenhouse gases CO_2, CH_4, and N_2O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750) to 2005, concentrations of these three greenhouse gases have increased globally by 36, 148, and 18 percent, respectively (IPCC 2007)[2].

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 (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs).

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (California Energy Commission 2006a)[3]. In California, the transportation

[2] Intergovernmental Panel on Climate Change. 2007. "Climate Change 2007: The Physical Science Basis, Summary for Policymakers." http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_wg1_report_the_physical_science_basis.htm

[3] California Energy Commission. 2006a. Inventory of California Greenhouse Gas Emissions and Sinks 1990 to 2004. http://www.arb.ca.gov/cc/inventory/archive/archive.htm

sector is the largest emitter of GHGs, followed by electricity generation (California Energy Commission 2006a).

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California produced 492 million gross metric tons of carbon dioxide equivalents ($MMTCO_2e$) in 2004 (California Energy Commission 2006a). By 2020, California is projected to produce 507 $MMTCO_2e$ per year.[4]

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions. In 2012 transportation sector emissions, accounted for approximately 37 percent of the total GHG emissions in the state (California Greenhouse Gas Emission Inventory: 2000-2012).[5] This category was followed by the industrial sector contributing 21.9% of GHG emissions. The electric power generation sector (including both in-state and out of-state sources) has seen the greatest decline in GHG emissions down 14 percent from 2000, and currently contributing 11.2 percent of all state GHG emissions.

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)[6]. This phenomenon could lead to significant challenges securing an

[4] California Air Resources Board. 2010. "Functional Equivalent Document prepared for the California Cap on GHG Emissions and Market-Based Compliance Mechanisms."

[5] EPA http://www.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf

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

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 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 (Cal EPA 2006), 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 of 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.

Significance thresholds

In accordance with AB 32, a quantitative GHG analysis for the project has been prepared to determine whether or not the project would promote sustainability and implement operational GHG emission reduction strategies that would reduce the project's GHG emissions from Business as Usual (BAU) levels by 29 percent, in compliance with AB 32 and the Scoping Plan and in accordance with the guidance from the SJVAPCD.

The significance thresholds for GHG emissions are related to compliance with AB 32 and are based on the guidance from the SJVAPCD, which states that a development project must show a minimum GHG emission reduction of 29 percent from projected 2005 Business as Usual (BAU) levels by the year 2020.[7] The BAU level is the 2005 scenario, which corresponds to pre-AB 32. The project's BAU levels were evaluated in order to determine the net decrease in the project's GHG emissions over time.

Using this methodology, if the project does not show a 29 percent reduction from projected BAU levels compared to the project's estimated 2020 levels, the project would be considered to result in a cumulatively considerable contribution to global climate change. GHG emission reduction measures could include, but are not limited to, compliance with local, State, or federal plans or strategies for GHG reductions, on-site and off-site mitigation recommendations from the Office of the Attorney General, and project design features. It should be noted that the project would be required to comply with the minimum mandated measures of 2013 California Green Building Standards Code (CalGreen Code), such as a 20 percent mandatory reduction in indoor water use

[7] San Joaquin Valley Unified Air Pollution Control District Guidance for Assessing and Mitigating Air Quality Impacts (2015).

and diversion of 50 percent of construction waste from landfills. A variety of voluntary CalGreen Code measures also exists that would further reduce GHG emissions, but are not mandatory.

RESPONSES TO CHECKLIST QUESTIONS

Response a) and b): Less than Significant with Mitigation.

The proposed project's short-term construction-related and long-term operational GHG emissions for buildout of the proposed project, were estimated using the California Emission Estimator Model (CalEEMod)™ (v.2013.2.2). CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify GHG emissions from land use projects. The model quantifies direct GHG emissions from construction and operation (including vehicle use), as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Emissions are expressed in annual metric tons of CO_2 equivalent units of measure (i.e., $MTCO_2e$), based on the global warming potential of the individual pollutants.

Short-Term Construction GHG Emissions: Estimated increases in GHG emissions associated with construction of the proposed project (all phases collectively) are summarized in Table 5. The modeling included mitigation inputs for construction operations including the following:

- Reduce Vehicle Speed on Unpaved Roads to 5mph
- Water Exposed Area 2 Times Daily

TABLE 5: CONSTRUCTION GHG EMISSIONS (METRIC TONS/YR)

	Bio- CO2	*NBio- CO2*	*Total CO2*	*CH4*	*N2O*	*CO2e*
2016	0.0000	599.2754	599.2754	0.1546	0.0000	602.5209
2017	0.0000	449.4071	449.4071	0.0806	0.0000	451.1006
2018	0.0000	443.5196	443.5196	0.0793	0.0000	445.1856
2019	0.0000	198.7190	198.7190	0.0415	0.0000	199.5914
Total	**0.0000**	**1,690.9210**	**1,690.9210**	**0.3561**	**0.0000**	**1,698.3984**

SOURCES: CALEEMOD (V.2013.2.2).

As presented in the table, short-term construction emissions of GHG associated with development of all phases collectively are estimated to be 1,698.3984 $MTCO_2e$. This represents a low of 199.59 and a high of 602.52 $MTCO_2e$ emitted during each of the construction years. These construction GHG emissions are a one-time release and are comparatively much lower than overall emissions associated with operational phases of a project. Construction GHG emissions from the proposed project do not impede local GHG reduction efforts, or violate GHG reduction goals set by AB 32, as required by the Public Resources Code, Section 21082.2. Additionally, as discussed previously, Mitigation Measure 6 requires the project applicant to comply with District Rule 9510 which is intended to reduce construction related emission. Therefore, cumulatively these construction emissions would not generate a significant contribution to global climate change.

Long-Term Operational GHG Emissions: The long-term operational GHG emissions estimate for buildout of the proposed project incorporates the potential area source and vehicle emissions, and emissions associated with utility and water usage, and wastewater and solid waste generation. The modeling included mitigation inputs including the following:

Traffic Mitigation

- Increase Transit Accessibility in the Plan Area (minimum distance to transit stops is 0.1 miles)
- Improve Pedestrian Network so that the Plan Area connects to offsite pedestrian networks
- Implement School Bus Program to Achieve 25% ridership

Energy Mitigation

- Exceed Title 24 by 15%
- Install High Efficiency Lighting
- Install High Efficiency Appliances

Area Mitigation

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Only Natural Gas Hearths

Water Mitigation

- Install Low Flow Bathroom Faucet
- Install Low-Flow Kitchen Faucet
- Install Low-Flow Toilet
- Install Low-Flow Shower
- Use Water-Efficient Irrigation Systems

Estimated GHG emissions associated with buildout of the proposed project (all phases) with and without the above mitigation incorporated are summarized in Tables 6 and 7. As shown in Tables 6 and 7, the annual GHG emissions associated with buildout of the proposed Project (all phases) would be 3,579.8$MTCO_2e$ with the above referenced mitigation incorporated and 4,119.0 $MTCO_2e$ without mitigation. The mitigation results in a decrease of 539.3$MTCO_2e$, representing a decrease of 13.1 percent.

TABLE 6: OPERATIONAL GHG EMISSIONS 2020 (UNMITIGATED METRIC TONS/YR)

	Bio- CO_2	NBio- CO_2	Total CO_2	CH_4	N2O	CO_2e
Area	238.9249	100.6460	339.5709	1.1215	1.7900e-003	363.6783
Energy	0.0000	876.7301	876.7301	0.0295	0.0117	880.9723
Mobile	0.0000	2,704.2003	2,704.2003	0.0831	0.0000	2,705.9454
Waste	52.3960	0.0000	52.3960	3.0965	0.0000	117.4229
Water	4.6715	32.6305	37.3020	0.4813	0.0116	51.0157
Total	**295.9925**	**3,714.2069**	**4,010.1994**	**4.8119**	**0.0251**	**4,119.0347**

SOURCES: CALEEMOD (V.2013.2.2)

TABLE 7: OPERATIONAL GHG EMISSIONS 2020 (MITIGATED METRIC TONS/YR)

	Bio- CO_2	NBio- CO_2	Total CO_2	CH_4	N2O	CO_2e
Area	0.0000	100.6460	100.6460	4.5500e-003	1.7900e-003	101.2979
Energy	0.0000	789.9436	789.9436	0.0269	0.0105	793.7457
Mobile	0.0000	2,523.5533	2,523.5533	0.0780	0.0000	2,525.1912
Waste	52.3960	0.0000	52.3960	3.0965	0.0000	117.4229
Water	3.7372	27.4182	31.1555	0.3850	9.3100e-003	42.1255
Total	**56.1332**	**3,441.5611**	**3,497.6944**	**3.5909**	**0.0216**	**3,579.7831**
% Reduction	**81.04**	**7.34**	**12.78**	**25.37**	**14.14**	**13.09**

SOURCES: CALEEMOD (V.2013.2.2)

The significance thresholds for GHG emissions should be related to compliance with AB 32. The City of Tracy, as lead agency, has chosen to utilize a threshold of significance for GHG emissions based on the guidance from the SJVAPCD, that state a development project must show a minimum GHG emission reduction of 29 percent from projected Business as Usual (BAU) levels (i.e., 2005 scenario) by the year 2020. Thus, the proposed Project's (all phases) Business as Usual levels were evaluated in order to determine the net decrease in the proposed Project's (all phases) GHG emissions over time. Table 8 presents the projected BAU GHG emissions, which are estimated to be 5,049.1 $MTCO_2e$.

TABLE 8: OPERATIONAL GHG EMISSIONS BUSINESS AS USUAL (UNMITIGATED METRIC TONS/YR)

	Bio- CO_2	NBio- CO_2	Total CO_2	CH_4	N2O	CO_2e
Area	238.9249	100.6460	339.5709	1.1232	1.7900e-003	363.7144
Energy	0.0000	876.7301	876.7301	0.0295	0.0117	880.9723
Mobile	0.0000	3,628.9350	3,628.9350	0.3351	0.0000	3,635.9727
Waste	52.3960	0.0000	52.3960	3.0965	0.0000	117.4229
Water	4.6715	32.6305	37.3020	0.4813	0.0116	51.0157
Total	**295.9925**	**4,638.9416**	**4,934.9340**	**5.0657**	**0.0251**	**5,049.0979**

SOURCES: CALEEMOD (V.2013.2.2)

Consequently, the proposed Project (all phases) would result in a 29.1 percent reduction in annual GHG emissions from the BAU level by 2020 ([3,579.7831 MTCO2e–5,049.0979 MTCO2e] / 5,049.0979 MTCO2e x 100 = 29.1%). The reduction in GHG emissions would be attributable to the traffic, energy, water, and solid waste mitigation model inputs as well as the advancement of vehicle and equipment efficiency, and more stringent standards and regulations as time progresses, such as State regulation emission reductions (e.g., Pavley, Low Carbon Fuel Standard, and Renewable Portfolio Standard). It should be noted that although a reduction related to such attributes would occur for every development project, CalEEMod takes into consideration how much of each attribute is applied for each specific project based on the size of the project and associated land uses.

In addition, as stated previously, the proposed Project (all phases) would be required to comply with the minimum mandatory measures of the CalGreen Code, which would result in an estimated 1.8 percent reduction. Furthermore, reduction of cumulative ROG and NOx emissions due to the Indirect Source Rule mitigation (discussed under Air Quality) would subsequently result in an associated reduction in CO_2 emissions. The total reduction in GHG emissions from BAU levels will exceed the minimum reduction threshold of 29 percent per the guidance provided by the SJVAPCD.

The City of Tracy adopted the Tracy Sustainability Action Plan in 2011. The Sustainability Action Plan 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:

- Measure E-1: Implement California Green Building Standards, as contained in Title 24, Part 11, CCR.
- Measure T-4: Promote transit ridership increase transit route coverage to within ¼ mile of 75 percent of residents within new development areas.
- 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.
- Measure PH-12: Encourage new development to use non-toxic building materials.

The proposed project would assist the City of Tracy with implementation of the Sustainability Action Plan, and is consistent with the measures described above. The proposed project would be constructed in compliance with the California Green Building Standards, would install energy efficient lighting, promote transit ridership, and encourage the use of nontoxic building materials.

Conclusion: As stated previously, short-term construction GHG emissions are a one-time release of GHGs and are not expected to significantly contribute to global climate change over the lifetime of the proposed Project. Construction GHG emissions from the proposed project do not impede local GHG reduction efforts, or violate GHG reduction goals set by AB 32, as required by the Public Resources Code, Section 21082.2. Additionally, as discussed previously, Mitigation Measure 6 requires the project applicant to coordinate with the SJVAPCD to verify that the project meets the requirements of District Rule 9510, which is intended to reduce construction related emission.

Therefore, cumulatively these construction emissions would not generate a significant contribution to global climate change.

With the implementation of the following mitigation measure and those presented in Section III Air Quality, the overall annual GHG emissions associated with the proposed Project (all phases) would be reduced by over 29.1 percent relative to the BAU scenario, consistent with applicable standards and thresholds of a 29 percent reduction. Because the proposed Project (all phases) would meet the 29 percent minimum reduction threshold, the proposed Project (all phases) would be consistent with the GHG reduction percentage sought by the State's Scoping Plan, implementation of the proposed project would not hinder the State's ability to reach the GHG reduction target.

The proposed Project (all phases) will comply with Title 24, Part 6 of the California Code of Regulations, known as the Building Energy Efficiency Standards. This includes the CALGreen requirements for new buildings to reduce water consumption, and install low pollutant-emitting materials. The City will review individual building plans as they are prepared to ensure that they comply with the latest Title 24 requirements, including CALGreen.

Based on the project's consistency with the City's Sustainability Action Plan, and with the reduction target set by SJVAPCD. Implementation of the proposed Project (all phases) would not exceed an established threshold, conflict with any applicable plan, policy, or regulation related to GHG reduction. Therefore, impacts related to GHG emissions and global climate change would be considered **less-than-significant** with the implementation of the following mitigation measure.

MITIGATION MEASURES

Mitigation Measure 11*: Along with the mitigation measures contained in Section III (Air Quality), the project applicant shall institute the following mitigation measures during construction and operation of the Project to reduce Greenhouse Gas Emissions and Energy Consumption.*

- *Increase transit accessibility in the Plan Area by ensuring a minimum distance of 0.1 miles to transit stops*
- *Ensure that the pedestrian network within the Plan Area connects to offsite pedestrian networks*
- *Exceed Title 24 by 15% through verified compliance with CALGreen Tier 1 efficiency requirements*
- *Install high efficiency lighting and appliance within all units*
- *Install low-flow faucets, toilets, and showers as applicable*
- *Use water-efficient irrigation systems throughout the Plan Area*

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

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

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant with Mitigation. The proposed project would place new low-density residential uses in an area of the City that currently contains residential and agricultural uses. Agriculture activities typically use and transport hazardous materials including fuel, herbicides and pesticides. Contaminated soils resulting from agricultural operations were investigated in 1998 with the collection of soil samples, which were analyzed for organochlorine pesticides (OCPs). The pesticide 4,4-DDE was found in all samples at concentrations below the applicable criteria. In 2014 BVNA completed a Limited Subsurface Investigation and found that

concentrations of Total petroleum hydrocarbons (TPH) constituents and organochlorine pesticides were not detected above applicable regulatory screening levels.

The proposed residential land uses do not routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common residential grade hazardous materials such as household cleaners, paint, etc. The operational phase of the proposed project does not pose a significant hazard to the public or the environment.

The initial construction phase will require the demolition of one onsite residential structure and adjoining outbuilding. The home was constructed in 1974 had has been continually occupied. There are no known hazardous materials or substances onsite.

Onsite reconnaissance, historical records, and geotechnical evaluations indicate that there are no known underground storage tanks or pipelines located on the Project site that contain hazardous materials. Therefore, the disturbance of such items during construction activities is unlikely. 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, Mitigation Measure 12 requires the project applicant to implement a Stormwater Pollution Prevention Plan during construction activities, which would prevent any contaminated runoff from leaving the Project site. Therefore, the proposed project would have a **less than significant** impact relative to this issue.

MITIGATION MEASURES

Implement Mitigation Measure 12 (SWPPP)

Response c): Less than Significant. The Project site is located within roughly ¼ mile of an existing school. There are two schools located in close proximity to the Project site. Figure 9 shows nearby schools in relation to the Project site. John C. Kimball High School is located approximately 0.35 miles north of the Project site, and George Kelly Elementary School located approximately 0.26 miles east of the Project site. As described under Response a), above, operation of the project would not involve the use, storage, transport or handling of hazardous materials, beyond those commonly found in typical residential areas. Construction related activities may utilize limited quantities of common hazardous materials on the site, and the use, storage, and transport of these materials are required to comply with applicable federal, state, and local statutes and regulations, which would reduce the potential for accidental spills or releases that could exposure schools to hazardous materials. Additionally Mitigation Measure 12 requires the project applicant to implement a Stormwater Pollution Prevention Plan during construction activities, which would prevent any contaminated runoff from leaving the Project site. Therefore, there is limited exposure of school sites to hazardous materials from operation or construction activities that may use or store hazardous materials at the Project site. This is a **less than significant** impact and no additional mitigation is required.

Response d): Less than Significant. According the California Department of Toxic Substances Control (DTSC) there are no Federal Superfund Sites, State Response Sites, or Voluntary Cleanup Sites on, or in the near vicinity of 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 investigation sites include:

> ***George Kelly School*** (site #39010033) was historically utilized for agricultural purposes, indicating potential pesticide application. The west parcel was occupied by row crops. The east parcel was occupied by walnut orchards. A preliminary environmental site assessment (PEA) was completed for the site in April of 2003. Site soils were sampled and analyzed for pesticides and heavy metals. On November 26, 2003, DTSC issued an approval letter for the PEA with a no further action determination.
>
> ***Kimball High School*** (site #60000718). This parcel of land, referred to as Kimball High School, is an addition to the Kimball High School project (Site Code 104281). Due to new easement requirements for the development, the District is adding ~7 acres to the southern boundary of the Kimball High site. This site has no historical structures and has identical historical agricultural use to the Kimball High site. The PEA for the original Kimball High School site revealed only trace levels of residual agricultural chemicals in the fields and received a partial site approval of the agricultural fields. Based on the identical history and previous investigations on the adjoining project, the Phase 1 recommends No Action. On October 4, 2007, DTSC approved the Phase I for this site with a no action determination.

A Phase I Environmental Site Assessment (Phase I) was completed for the Project site on December 17, 2013 by Bureau Veritas North America, Inc. (BVNA). BVNA conducted a Phase I ESA in conformance with ASTM Designation. The Phase I investigation included a review of environmental investigation reports and historic land use information, interviews, a site reconnaissance, a review of regulatory lists and databases, and the development of recommendations for further actions. The Phase I noted that the Project site was historically used for agricultural purposes from at least 1939 to 2010. This included orchards in the 1970s and 1980s. Historical agricultural use was investigated in 1998 with the collection of five discrete soil samples, which were analyzed for OCPs. The pesticide 4,4-DDE was found in all samples at concentrations below the applicable criteria. The 2013 samples were not analyzed for TPH/d/TPH-mo or metals, which are commonly associated with the application of organochlorine pesticides.

In 2014 BVNA completed a Limited Subsurface Investigation and found that concentrations of TPH constituents and organochlorine pesticides were not detected above applicable regulatory screening levels. Various metals were detected in each of the analyzed samples at concentrations below their respective Environmental Screening Levels (ESLs) and California Human Health Screening Levels (CHHSLs), with the exception of arsenic. Detected arsenic concentrations range from 2.8 to 3.9 milligrams per kilogram (mg/kg). The detected arsenic concentrations exceed the ESL and CHHSL of 0.39 and 0.07 mg/kg, respectively. According to the California Office of Environmental Health Hazard Assessment (OEHHA) CHHSL guidance document (DTSC, 2005),

naturally occurring background concentrations of arsenic, beryllium, cadmium, chromium and other metals in soils may exceed their respective CHHSLs. The California Environmental Protection Agency (Cal EPA) and other agencies within California typically do not require cleanup of naturally occurring chemicals to less than ambient concentrations. Therefore, implementation of the proposed project would result in a **less than significant impact** relative to this environmental topic.

Responses e), f): 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.

The San Joaquin County Airport Land-Use Commission (ALUC) provides for the appropriate development of the areas surrounding the six public access airports in San Joaquin County. The Airport Land Use Compatibility Plan (ALUCP), provides guidance intended 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. Currently, the SJCOG Board of Directors serves as the designated body to carry out the functions of the ALUC. This includes establishing an Airport Land Use Compatibility Plan (ALUCP).

The Tracy Municipal Airport is the closest airport to the Project site, located approximately 2.5miles southeast of the Project site. The Airport is a general aviation airport owned by the City and managed by the Public Works Department. Guidelines for Airport Land Use were developed by SJCOG Airport Land Use Commission in 2013. Furthermore, the City of Tracy adopted an Airport Master Plan in 1998, analyzing the impacts to safety on surrounding development from the Tracy Municipal Airport.

The probability of an aircraft accident is highest along the extended runway centerline, and within one mile of the runway end. According to SJCOG Guidelines there are seven zones in which land use restrictions apply due to proximity to the airport:

1. Zone 1 Runway Protection Zone (RPZ)
2. Zone 2 Inner Approach/Departure Zone (IADZ)
3. Zone 3 Inner Turning Zone (ITZ)
4. Zone 4 Outer Approach/Departure Zone (OADZ)
5. Zone 5 Sideline Safety Zone (SSZ)
6. Zone 7 Traffic Pattern Zone (TPZ)
7. Zone 8 Airport Influence Area (AIA)

Land use constraints in these zones become progressively less restrictive from the RPZ to the TPZ. The proposed project is not located within any of the safety zones. The proposed project is not located within one mile of the airport, nor along the extended runway centerline. Additionally, there are no private airstrips within the vicinity of the Project site. The proposed project consists of single story and two story structures, and does not propose any structures of substantial height that would protrude into active airspace. Building height would be consistent

with surrounding uses. Therefore safety hazards related to the project's proximity to the Tracy Municipal Airport are **less than significant,** and no mitigation is required.

Response g): No Impact. The General Plan (Adopted February 1, 2011) includes policies that require the City to maintain emergency access routes that are free of traffic impediments (Goal SA-6, Objective SA-6.1, Policy P1 and Action 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 residential land uses near similar residential uses, 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 h): 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 southwestern 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 identified moderate wildland fire potential area in and around Tracy does not include the project site. Since the Project site is not located within a designated wildfire hazard area, this is a **less than significant** impact and no mitigation is required.

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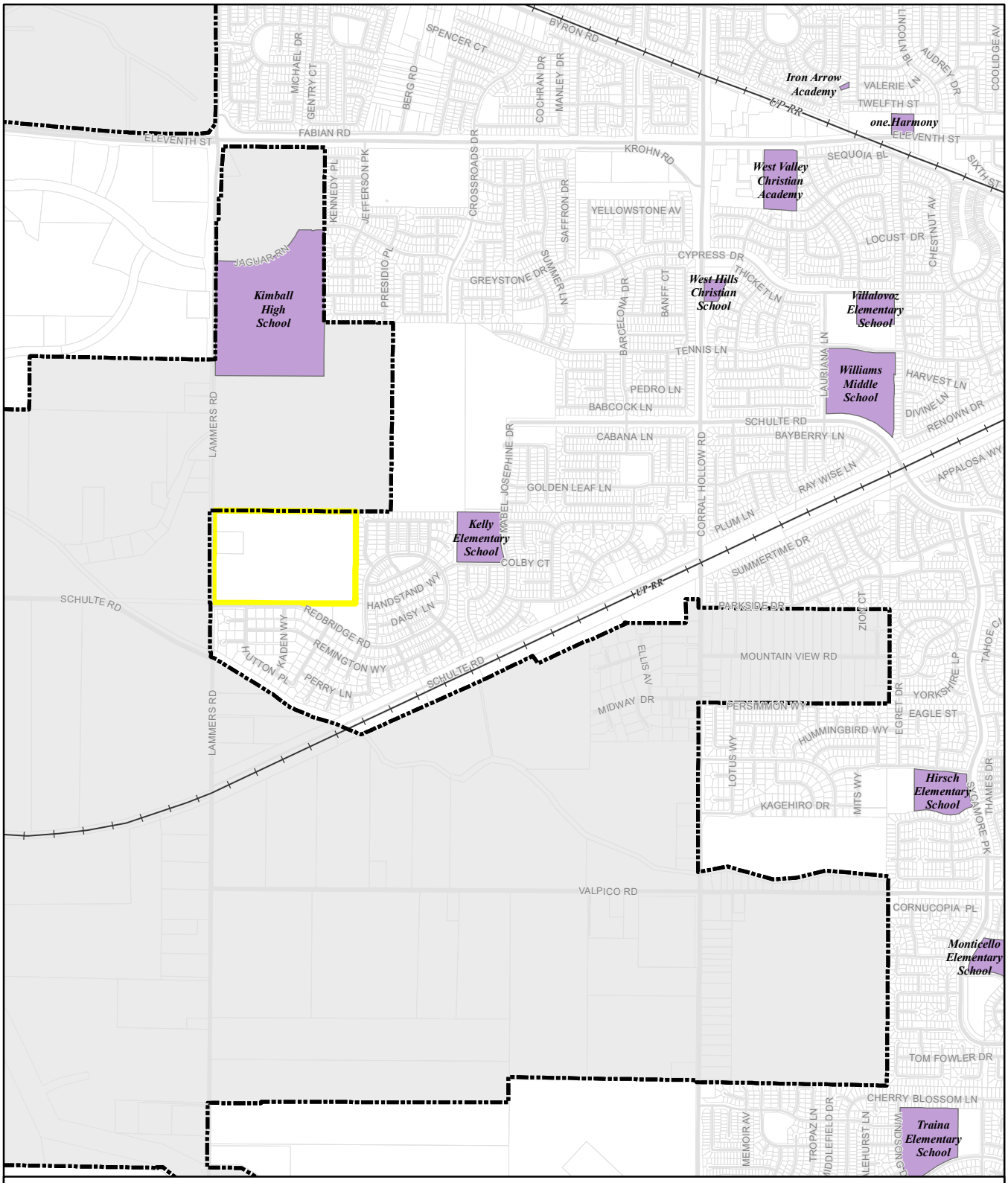

ROCKING HORSE PROJECT MND
TRACY, CALIFORNIA

Figure 9: Schools Map

Legend

- Project Boundary
- City of Tracy
- Schools

N

0 600 1,200

Feet

1:24,000

Sources: San Joaquin County GIS. Map date: November 9, 2015.

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

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

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
a) Violate any water quality standards or waste discharge requirements?		X		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			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, in a manner which would result in substantial erosion or siltation on- or off-site?		X		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		X		
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		X		
f) Otherwise substantially degrade water quality?		X		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?			X	
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			X	
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
j) Inundation by seiche, tsunami, or mudflow?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a): Less than Significant with Mitigation. 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 10.8mgd. The City's Wastewater Treatment Plant (WWTP) currently treats approximately 9.0mgd 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 264 gallons per day of wastewater per residential unit was used to estimate the wastewater that would be generated by the proposed project.[8] Based on this generation factor, it is estimated that the proposed project would generate up to 0.05996mgd of wastewater. The addition of 0.0596mgd 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 application of best management practices (BMPs) to effectively reduce pollutants from stormwater leaving the site during both the construction and operational phases of the project are required under Mitigation Measure 12, which requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP).

Through compliance with the NPDES permit requirements, and compliance with the SWPPP, the proposed project would not result in a violation of any water quality standards or waste discharge requirements. Therefore, through compliance with the NPDES, and SWPPP requirements required by Mitigation Measure 12, impacts from the proposed project would result in a **less than significant** impact relative to this environmental topic.

MITIGATION MEASURE

Implement Mitigation Measure 12 (SWPPP)

[8] Wastewater Flow and Loading Generation Factors from the Tracy Wastewater Master Plan (Low Density Residential wastewater generation factor)

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. As described in greater detail in the Utilities Section of this document, the City has adequate water supplies to serve the proposed project without increasing the current rate of groundwater extraction.

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. The proposed project would result in **less than significant** impacts related to depletion of groundwater supplies and interference with groundwater recharge. No mitigation is required.

Responses c), d), e), f): Less than Significant with Mitigation. When land is in a natural or undeveloped condition, soils, mulch, vegetation, and plant roots absorb rainwater. This absorption process is called infiltration or percolation. 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 may result in flooding 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 59.1-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. Best management practices (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 a retention basin by a new stormwater conveyance system on the Project site.

The proposed project will be designed and constructed with an onsite temporary storm drainage system that would remain in place until the downstream storm drain system is constructed with the project to the northeast of the site as indicated in the City's proposed Alternate Storm drain Connection, and Temporary Retention Basin diagrams for South Lammers Road. The temporary basin would be located in the northeast corner of the Project site. A preliminary engineering study has been completed for the Project site by Carlson Barbee & Gibson Inc. Civil Engineering services. The report has determined that 13.30 acre feet of storage capacity is needed to accommodate project stormwater requirements. The basin area accounts for a total surface area of 74,250 square feet (1.7 acres), and is sized per Section 5 of the City of Tracy Engineering Design and Construction Standards.

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. Prior to approval of the Final Map, 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.

In order to ensure that stormwater runoff from the Project site does not adversely increase pollutant levels in adjacent surface waters and stormwater conveyance infrastructure, or otherwise degrade water quality, Mitigation Measure 12 requires the preparation of a Stormwater Pollution Prevention Plan (SWPPP), and structural BMPs. As described below, the SWPPP would require the application of best management practices (BMPs) to effectively reduce pollutants from stormwater leaving the site, which would ensure that stormwater runoff does not adversely increase pollutant levels, and would reduce the potential for disturbed soils and ground surfaces to result in erosion and sediment discharge into adjacent surface waters during construction and operational phases of the project. The implementation of this mitigation measure would reduce this impact to a **less than significant** level.

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, Mitigation Measure 13 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 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 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 implementation of this mitigation measure would reduce this impact to a **less than significant** level.

MITIGATION MEASURES

Mitigation Measure 12*: 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 and Redevelopment according to site requirements and shall be subject to approval by the City Engineer and Central Valley RWQCB.*

Mitigation Measure 13*: Prior to approval of the Final Map, 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 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 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 g), h): 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.

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 or 500-year floodplain. This is a **less than significant** impact and no mitigation is required.

Responses i), j): Less than Significant. The Project site is not located within an inundation risk area. The nearest inundation areas are at the northernmost parts of the city (approximately 3 miles north of the Project site) and are subject to inundation by the San Luis Reservoir and New Melones Dams. The safety of dams in California is stringently monitored by the California Department of Water Resources, Division of Safety of Dams (DSD). The DSD is responsible for inspecting and monitoring the dam in perpetuity. The proposed project would not result in actions that could result in a higher likelihood of dam failure at San Luis Reservoir and New Melones Dams. There will always be a remote chance of dam failure that results in flooding of portions of the city. However, the Project site lies outside of this risk area. Given the regulations provided in the California Dam Safety Act, and the ongoing monitoring performed by the DSD, the risk of loss, injury, or death to people or structures from dam failure is considered **less than significant**.

There are no significant bodies of water near the Project site that could be subject to a seiche or tsunami. Additionally, the Project site and the surrounding areas are essentially flat, which precludes the possibility of mudflows occurring on the Project site. This is a **less than significant** impact and no mitigation is required.

X. LAND USE AND PLANNING - Would the project:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?		X		

RESPONSES TO CHECKLIST QUESTIONS

Responses a): No Impact. The Project site is surrounded by residential, and agricultural land uses. The project is located adjacent to existing communities and would be consistent and compatible with the surrounding residential land uses. The project would not physically divide any established community. Therefore, there is **no impact.**

Responses b): Less than Significant. The Project site is currently designated Urban Reserve by the City of Tracy General Plan Land Use Designations Map and is zoned Low Density Residential. The proposed project includes a request for a General Plan Amendment to designate the site Residential-Low, and a proposed rezone to Planned Unit Development (PUD).

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
- City of Tracy Zoning Ordinance

The City of Tracy General Plan provides the following designations relevant to the proposed project.

Urban Reserve 8: The Urban Reserve designation is applied to relatively large, contiguous, geographic areas where comprehensive planning must occur prior to urbanization. The purpose of assigning the Urban Reserve designation to these large, undeveloped areas rather than specific land use designations to various parcels is to provide guidance regarding the vision and types of land uses allowed while still allowing flexibility in location of these uses.

Each area with an Urban Reserve designation will require comprehensive planning and the preparation of a Zoning District, Specific Plan or PUD. In conjunction with a Zoning District, Specific Plan or PUD, a General Plan amendment will be necessary to establish specific General Plan land use designations for each parcel of land. The Zoning District, Specific Plan and/or PUD shall include a vision, goals, objectives and images that describe the most important qualities that

the built development should have when completed. In addition, a concept plan must be included in order to show the location and intensity of the land uses. The following General Plan policies apply the urban Reserve 8 Designation: [9]

- 8a. The acreages assigned to land uses in the statistical profile for this Urban Reserve are intended as guidelines; the overall distribution and mixture of residential densities may change.
- 8b. Future development in this Urban Reserve should have a well-integrated mix of housing types with an average density of six dwelling units per acre.
- 8c. Development in this area should be coordinated with development in Urban Reserves 5 and the surrounding development to ensure adequate transitions between the location, site layout and intensity of land uses.

Residential Low (RL). Single family dwelling units are the principal type of housing stock allowed in these areas. Attached units, zero lot line and clustered housing are also permissible and are encouraged within the overall framework of each community. These housing types can help to meet the City's desire to create unique neighborhoods and enhance the character of the community. Allowable densities for the Residential Low designation are 2.1to 5.8 units per gross acre.

The City of Tracy Zoning Ordinance (Municipal Code Title 10) provides the following designations relevant to the proposed project.

The **Low Density Residential** (LDR) Zone is intended to be utilized in the areas designated low-medium density residential with a density range of 2.0 to 5.8 dwelling units per gross acre by the General Plan.

The proposed uses on the Project site are consistent with the purpose of the General Plan designation of Urban Reserve, which designates larger partials of land for planned development. Approval of the requested General Plan Amendment (from Urban Reserve to Residential Low) would be required to ensure that the proposed project is consistent with the Tracy General Plan. The Project site is currently zoned LDR; the project applicant is requesting a rezone to PUD to allow for flexibility in site design, setbacks, and development characteristics. Approval of a Zoning Amendment from Low Density Residential to Planned Unit Development (PUD) would be required prior to project approval. The PUD development standards (including building heights, densities setbacks) will conform to the development agreement between the City and the Developer. The project's consistency with other General Plan policies that provide environmental protections are addressed within the relevant sections of this document. This is a **less than significant** impact, and no mitigation is required.

Response c): Less than Signification with Mitigation. As described under the Biological Resources section of this document, the proposed project is classified as Urban Reserve under the SJMSCP. As required by Mitigation Measure 7, prior to issuance of grading permits, the Project

[9] City of Tracy General Plan (2011) Section 2-77

proponent will be required to coordinate with SJCOG and will be responsible for the appropriate coverage, permits, compensatory mitigation or fees, and project-specific avoidance, minimization, and mitigation measures as defined within the SJMSCP. Implementation of Mitigation Measure 7 would ensure that the project would not conflict with the implementation of the SJMSCP and has appropriate measures to ensure compliance with payment of mitigation fees. The implementation of Mitigation Measure 7 would reduce this impact to a **less than significant** level.

MITIGATION MEASURES

Implement Mitigation Measure 7

XI. MINERAL RESOURCES -- WOULD THE PROJECT:

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

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. 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 such as 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-1. The MRZ-1 designation applies to areas where adequate information indicates that no significant mineral deposits are present, or where there is little likelihood for their presence. There are not substantial aggregate materials located within the Project site. Therefore, the project would not result in the loss of availability of a known mineral resource. There is **no impact**.

XII. NOISE -- WOULD THE PROJECT RESULT IN:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			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 expose people residing or working in the project area to excessive noise levels?			X	
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

BACKGROUND

A noise study for the proposed project was performed by J.C. Brennan & Associates, Inc. in May of 2015.

KEY NOISE TERMS

Acoustics The science of sound.

Ambient Noise The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.

Attenuation The reduction of noise.

A-Weighting A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.

Decibel or dB Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared.

CNEL Community noise equivalent level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.

Frequency The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.

Impulsive Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.

L_{dn} Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.

L_{eq} Equivalent or energy-averaged sound levelThis section provides a general description of the existing noise sources in the project vicinity, a discussion of the regulatory setting, and identifies potential noise impacts associated with the proposed project. Project impacts are evaluated relative to applicable noise level criteria and to the existing ambient noise environment.

Lmax The highest root-mean-square (RMS) sound level measured over a given period of time.

L(n) The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50 percent of the time during the one hour period.

Loudness A subjective term for the sensation of the magnitude of sound.

Noise Unwanted sound.

SEL Sound exposure levels. A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event.

METHODOLOGY

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD 77-108) was used to develop Ldn (24-hour average) noise contours for the primary project-area roadways. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model predicts hourly Leq values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict Ldn values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour period.

Existing traffic volumes were obtained from the traffic study prepared for the project (Kimley Horn, May 7, 2015). Day/night traffic distributions were based upon file data for similar roadways. Using these data sources and the FHWA traffic noise prediction methodology, traffic noise levels were calculated for existing conditions.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segments. In some locations sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed

to be representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in this report.

The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers.

A community noise survey was conducted to document existing ambient noise levels at the Project site. The data collected included the hourly average (Leq), median (L50), and the maximum level (Lmax) during the measurement period.

Community noise monitoring equipment included a Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meter equipped with an LDL ½" microphone. The measurement system was calibrated using a LDL Model CAL200 acoustical calibrator before and after testing. The measurement equipment meets all of the pertinent requirements of the American National Standards Institute (ANSI) for Type 1 (precision) sound level meters.

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant with Mitigation.

Exterior Noise Impacts

The proposed project is located in an area consisting predominately of residential and agricultural land uses. The primary sources of noise currently present in the project area are from vehicle traffic along Lammers Road.

The City of Tracy General Plan establishes allowable noise exposure levels for single-family residential land uses. As described under Goal N-1, Objective N-1.1, Policy P.4 of the Tracy General Plan, *"new single-family residential development shall not exceed 60 Ldn (day/night average noise level) for exterior noise in private use areas."*

The FHWA traffic noise prediction model was used to predict Cumulative + Project traffic noise levels at the proposed residential uses associated with the project. Table 9 shows the predicted traffic noise levels at the proposed residential uses adjacent to the major project-area roadways.

TABLE 9: CUMULATIVE + PROJECT TRANSPORTATION NOISE LEVELS AT PROPOSED RESIDENTIAL USES

ROADWAY	RECEPTOR DESCRIPTION	APPROXIMATE RESIDENTIAL SETBACK, FEET[1]	ADT	PREDICTED TRAFFIC NOISE LEVELS, LDN				
				NO WALL	6' WALL	7' WALL	8' WALL	9' WALL
Lammers Road	Backyards	100'	48,520	69 dB	63 dB	62 dB	61 dB	60 dB

[1] SETBACK DISTANCES ARE MEASURED IN FEET FROM THE CENTERLINES OF THE ROADWAYS TO THE CENTER OF RESIDENTIAL BACKYARDS.
SOURCE: FHWA-RD-77-108 WITH INPUTS FROM ABRAMS ASSOCIATES, AND J.C. BRENNAN & ASSOCIATES, INC. 2015.

The Table 9 data indicate that a 9-foot tall sound wall would be required for the residential uses proposed along S. Lammers Road. This wall is predicted to reduce exterior noise levels to 60 dB L_{dn}, or less. [10] Figure 10 shows the recommended wall location.

Interior Noise Impacts

Modern construction typically provides a 25 dB exterior-to-interior noise level reduction with windows closed. Therefore, sensitive receptors exposed to exterior noise of 70 dB L_{dn}, or less, will typically comply with the City of Tracy 45 dB L_{dn} interior noise level standard. Additional noise reduction measures, such as acoustically rated windows are generally required for exterior noise levels exceeding 70 dB L_{dn}.

It should be noted that exterior noise levels are typically 2-3 dB higher at second floor locations. The proposed residential uses are predicted to be exposed to unmitigated first floor exterior transportation noise levels of 69 dB L_{dn}. Therefore, second floor facades are predicted to be exposed to exterior noise levels of up to 72 dB L_{dn}. Based upon a 25 dB exterior-to-interior noise level reduction, interior noise levels are predicted to be 47 dB L_{dn}. These interior noise levels would exceed the City of Tracy 45 dB L_{dn} interior noise level standard and interior noise mitigation would be required. Specifically, all second floor windows with a view of South Lammers Road shall be fitted with sound transmission class (STC) 35 window assemblies. The (STC) 35 windows are predicted to achieve an interior noise level of 44 dB Ldn, which complies with the 45 dB Ldn standard. This calculation is predicted for a generic building construction with a safety factor, so it's possible the actual noise levels could be lower.

Conclusion

As described above, the proposed project would be subjected to vehicle roadway noise in excess of 65dBA in exterior areas, and in excess of 45dBA in interiors along South Lammers Road. The following mitigation measures will minimize noise impacts resulting from transportation noise impacts on the proposed Project site. Implementation of the following mitigation measures will ensure consistency with the City's noise standards, and will reduce this potentially significant impact to a **less than significant** level.

MITIGATION MEASURES

Mitigation Measure 14: *A 9-foot tall sound wall shall be constructed along S. Lammers Road. The wall may include a combination of earthen berm and concrete masonry to achieve the overall required wall height (e.g. 6-foot wall on 3-foot berm).*

Mitigation Measure 15: *All second floor windows with a view of S. Lammers Road shall have a minimum sound transmission class (STC) rating of 35. As an alternative to this requirement, the applicant may submit a detailed interior noise analysis outlining alternative noise control measures that would ensure compliance with the City of Tracy 45 dB* L_{dn} *interior noise level standard. This analysis should specify required sound ratings for*

[10] Existing Plus Project are lower than Cumulative Plus Project noise levels. The sound wall would more than mitigate for the existing plus project noise condition.

glazing as well as any other modifications to the building envelope used to meet the City's interior noise level standard. This analysis shall be prepared by a qualified noise control engineer.

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. The primary vibration-generating activities associated with the proposed project would occur during construction when activities such as grading, utilities placement, and roadway construction occur. Sensitive receptors which could be impacted by construction related vibrations, especially vibratory compactors/rollers, are located approximately 25-50 feet or further from the Project site. At this distance construction vibrations are not predicted to exceed acceptable levels. Additionally, construction activities would be temporary in nature and would likely occur during normal daytime working hours.

Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception. Building damage can take the form of cosmetic or structural. Table 10 shows the typical vibration levels produced by construction equipment.

Table 10: Representative Vibration Source Levels for Construction Equipment

EQUIPMENT	*PEAK PARTICLE VELOCITY AT 25 FEET (IN/SEC)*
Large Bulldozers	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozers	0.003
Source: FTA *Transit Noise and Vibration Impact Assessment Guidelines* 2006	

As indicated in Table 10, predicted vibration levels are not 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.

Response c): Less than Significant. Generally, a project may have a significant noise 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 would not directly generate increased noise beyond those activities commonly found in residential developments (i.e., lawnmowers, leaf blowers, etc.). The noise directly generated by the project would not differ from the existing ambient noises currently generated by the surrounding residential land uses.

However, the proposed project may indirectly increase ambient noise levels in the project vicinity through the introduction of additional vehicle trips to area roadways. To describe future noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. Inputs to the model included traffic volumes provided by Kimley Horn. The FHWA model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly L_{eq} values for free-flowing traffic conditions. To predict Ldn/CNEL values, it is necessary to determine the day/night distribution of traffic and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Table 11 shows the noise levels associated with traffic on the local roadway network under the existing and existing plus project traffic conditions.

TABLE 11: EXISTING TRAFFIC NOISE LEVELS VS. EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	NOISE LEVELS (LDN, DB)			DISTANCE TO EXISTING + PROJECT TRAFFIC NOISE CONTOURS, FEET[1]		
		EXISTING	EXISTING + PROJECT	CHANGE (DB)	70 DB LDN	65 DB LDN	60 DB LDN
Lammers Road	North of Crossroads	62.5	63.7	1.2	38	82	177
Lammers Road	Crossroads to Redbridge	62.5	62.8	0.3	33	71	153
Lammers Road	Redbridge to Old Schulte	56.5	56.9	0.4	13	29	62
Redbridge Road	East of Lammers	54.4	54.4	0.0	5	10	21

[1] Distances to traffic noise contours are measured in feet from the centerlines of the roadways. Actual distances may vary due to shielding from existing noise barriers or intervening structures. Traffic noise levels may vary depending on actual setback distances and localized shielding.

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM KIMLEY HORN AND J.C. BRENNAN & ASSOCIATES, INC. 2015

As indicated by Table 11, the related noise level increases from development of the proposed project are predicted to range between 0.3 to 1.2 dB. The traffic noise from the Proposed Project is not expected to produce noise levels that would exceed City standards. Increased project related traffic would increase traffic noise levels by less than the City's 3-5 dB test of significance at existing sensitive receptors. As such, this is a **less than significant** impact and no mitigation is required.

Response d): Less than Significant. 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. Activities involved in project construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. The nearest residential receptors would be located 25-50 feet or more from the majority of project construction activities.

As stated above, noise sensitive receptors near the construction site would, at times, experience elevated noise levels from construction activities; however, construction-related noise generally

would occur during daytime hours only. General Plan Noise Element Policy 4 (Goal N-1.2) establishes the following construction requirements:

> *All construction in the vicinity of noise sensitive land uses, such as residences, hospitals, or convalescent homes, shall be limited to daylight hours or 7:00 a.m. to 7:00 p.m. In addition, the following construction noise control measures shall be included as requirements at construction sites to minimize construction noise impacts:*
>
> - *Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.*
> - *Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area.*
> - *Utilize "quiet" air compressors and other stationary noise sources where technology exists.*

Implementation of these required measures (i.e., engine muffling, placement of construction equipment, and strategic stockpiling and staging of construction vehicles), and compliance with the City Municipal Code requirements, would serve to further reduce exposure to construction noise levels. Adherence to City General Plan, City Municipal Code Title 4.12, Article 9 (Noise Control Ordinance), would minimize any impacts from noise during construction. Requirements stated above are adopted by the City as Conditions of Approval (COAs) for all new development projects prior to project approval. Therefore, no additional noise control measures would be required and this impact would be considered **less than significant**.

Response e): Less than Significant. The Tracy Municipal Airport located approximately 2.5 miles southeast is the closest airport to 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, 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. The Project site is located outside of both the 65 dBCNEL and the 60 dBCNEL noise contours for the Tracy Municipal Airport. 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.

Response f): No Impact. The Project site is not located in the vicinity of a private airstrip. Therefore, there is no impact.

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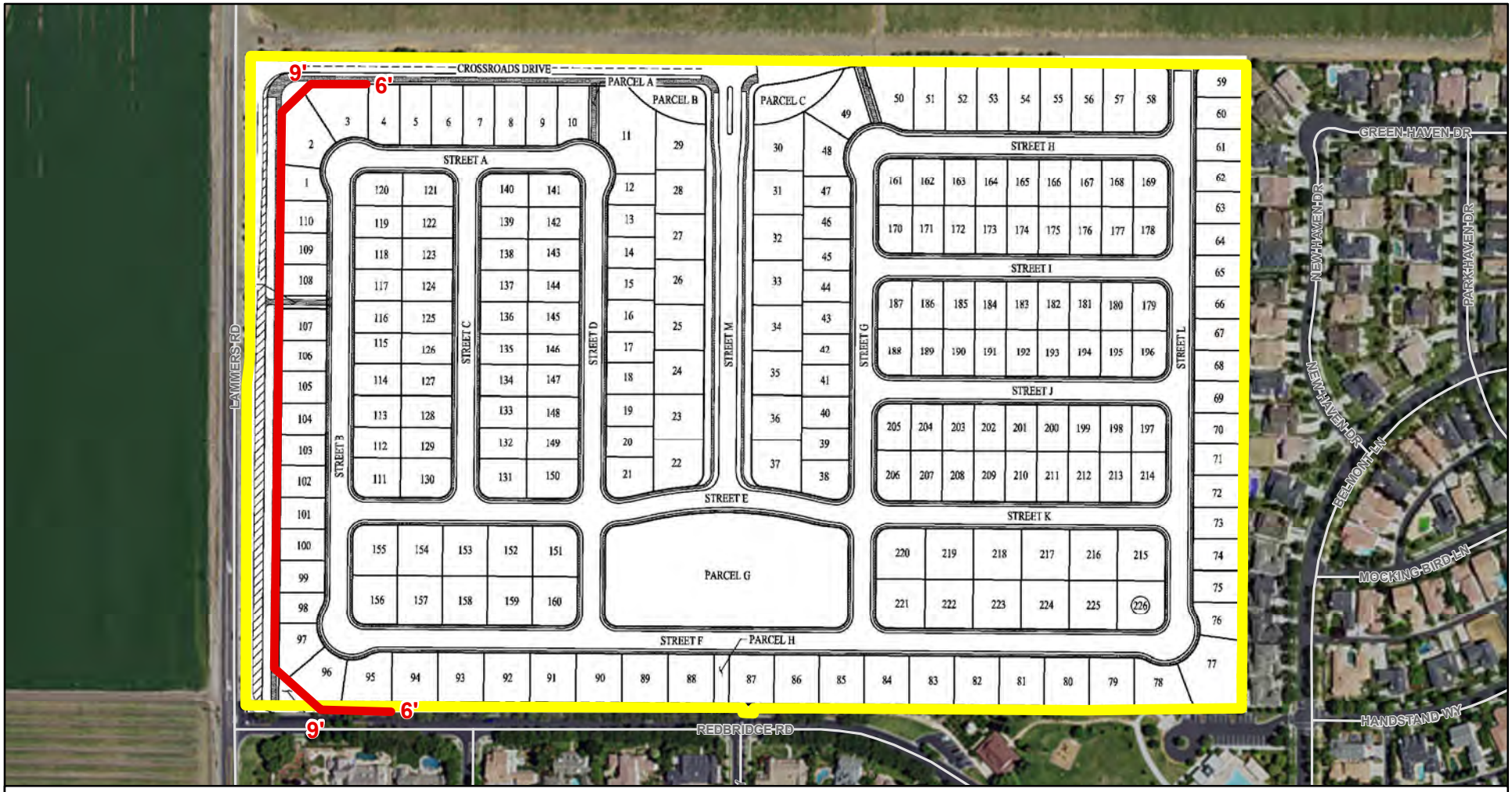

Legend

- Project Boundary
- Recommended Noise Barrier Locations and Heights

N

0 150 300

Feet

1:3,600

ROCKING HORSE PROJECT MND
TRACY, CALIFORNIA

Figure 10: Recommended Sound Wall Location

Sources: Carlson, Barbee & Gibson, Inc.; San Joaquin County GIS; ArcGIS Online World Imagery Map Service. Original figure prepared by J.C. Brennan & Associates May 2015. Map date: November 9, 2015.

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XIII. POPULATION AND HOUSING -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere?			X	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			X	

RESPONSES TO CHECKLIST QUESTIONS

Response a): Less than Significant. Implementation of the project would result in the construction of 226 single-family housing units on the Project site. The proposed project is located along the edge of an existing urbanized area of the City. There is existing infrastructure (roads, water, sewer, etc) in the immediate vicinity of the Project site. While the project would extend these services onto the site to serve the proposed development, the project would not extend infrastructure beyond an area of the City not currently served. Therefore, while the project may directly induce population growth through the provision of 226 new low-density residences, the project would not indirectly induce population growth in other areas of the City of Tracy.

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 other types of environmental impacts, such as traffic, service demands, etc. As described throughout this environmental document, the population growth attributable to the proposed project would not result in any significant environmental impacts that cannot be mitigated to a less than significant level. Future growth will occur through development allowed by the General Plan and by the City's Growth Management Ordinance (GMO). Under the GMO, approximately 19,981 building permits can be issued between 2011 and 2041.[11] Growth under this project is consistent with the General Plan and GMO. Additionally, growth generated by the project is within the growth forecast for the UR-8 designation contained in the General Plan, which assumes up to 450 additional units.[12]

While this document acknowledges that project approval would provide for additional housing opportunities in the City of Tracy, which may lead to population growth in the City, this impact is **less than significant**, as demonstrated throughout this document. No additional mitigation is required.

[11]http://www.sjgov.org/lafco/Tracy%20MSR/TracyMSR_Dec2011_ALL%20FILES[1].pdf
[12] Tracy General Plan 2011. Table 2-10 statistical profile: urban reserve 8.

Responses b), c): Less than Significant. There is one residential structure located on the Project site. Development of the Project would remove one housing unit onsite, and add 226 single-family residential units. Therefore, the Project would not displace substantial numbers of people or existing housing, and would have a **less than significant** impact in this respect.

XIV. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
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 with Mitigation. The Tracy Fire Department, as a member agency of the South County Fire Authority, provides fire protection, life safety, and emergency response services to 167 square miles of the southern part of San Joaquin County. In 1999, the South County Fire Authority (SCFA) was established to more effectively and efficiently serve the City of Tracy and the Tracy Rural Fire Protection District (FPD).

The SCFA currently operates six fire stations and an administrative office. Twenty-four hour-per-day staffing is provided with six paramedic engine companies and one 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.

Medical transport is provided by private ambulance. American Medical Response is the exclusive emergency ambulance service provider in San Joaquin County.

The Tracy Fire Department conducted a Standards of Response Coverage study in late 2007. Findings of the study indicated that the Department had challenges in meeting its established response time objectives in the areas of the West Valley Mall and Downtown Tracy utilizing existing resources. Two new facilities were opened in June 2014, to replace Fire Stations 92 and 96. The new facilities allow the Fire Department to serve the greater community of

Tracy (including the West Valley Mall) more effectively within the established response time standard of 6.5 minutes.

Response time and fire department effectiveness once units arrive are critical considerations in mitigating emergencies. The response time standard is defined as total reflex time (1:30 call processing, 1:00 turn-out time, and 4:00 travel-time). In addition, the Fire Department performance standard to measure effectiveness is to confine moderate risk structure fires to the room of origin or less 90% of the time in the City. In order to successfully mitigate emergencies, it is essential the Fire Department assemble an adequate number of personnel to perform critical tasks at the scene once the unit(s) arrive.

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 is implemented through the review of all new projects with the City's Sphere of Influence, prior to development, and through the collection of development impact fees for the funding of facilities.

Implementation of the proposed project will adversely impact existing fire and emergency services within the City, and will require the purchase of a new Type-I Fire Pumper Apparatus to be operated from and in addition to the existing resources assigned to Fire Station 94 at 16502 W. Schulte Road. 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 facility and equipment needs.

The project will also be required to provide additional sources of funding to support what will be on-going operational costs for Fire and Police services in the project area (as well as for Public Works staffing services related to maintenance of landscaping and other improvements within the public right-of-way). The City will therefore impose a condition of approval on the project requiring the developer to establish and fund a Community Facilities District (CFD) or other lawful funding mechanism prior to issuance of any building permits for the project. Alternatively, the developer can propose, subject to City review and approval of an agreement which shall then be recorded, a source of direct funding that will ensure provision of Fire, Police, and Public Works maintenance services for the project area in perpetuity. This option would also be required to be met prior to building permit issuance. With City imposition of this condition, impacts to Fire, Police, and Public Works maintenance services will be less than significant.

Payment of the applicable impact fees by the project applicant, and ongoing revenues that would come from property taxes, sales taxes, participation in the Community Facilities District or similar funding mechanism, and other revenues generated by the project, would fund capital and labor costs associated with fire protection services.

The Project is located approximately 2.7 miles from the nearest existing fire station and outside of the Department's 4-minute travel-time standard. The Project is adjacent to an existing development that contains 438 units that are also outside of the 4-minute travel-time standard. The addition of 226 units to the existing deficiency will generate a population increase

of 725 persons (226 X 3.21 persons per household = 725) outside of the 4-minute travel-time, and when added to the existing deficiency of the adjoining 438 units, 2,131 people would be in the area of deficient coverage. The nearest existing station at 16502 W. Schulte Road will experience increased demand due to a growing industrial/commercial development within its first-due area. Additional future development in the project area will further degrade the Fire Department's ability to adequately serve the area unless a permanent fire station is constructed. Therefore, in order to provide adequate fire protection and suppression services to the Project site in the interim, the Tracy Fire Department requires a new Type-I Fire Pumper Apparatus be purchased and operated from and in addition to the existing unit assigned to Fire Station 94 at 16502 W. Schulte Road before project build-out. Although the project remains outside of the 4-minute travel time standard, the number of incidents generated due to the population increase are low (226 X 3.21 persons per household = 725 X .064 calls per capita = 46 additional calls for service). The addition of a Type-I Fire Pumper Apparatus staffed with personnel will assist the Fire Department in assembling an adequate workforce to perform critical tasks within the project area for critical fire incidents. The additional unit will not enhance response times for critical emergency medical incidents.

The City of Tracy Public Safety Master Plan identifies this fire station that will permanently serve the project area as Station "B" (P31, Figure 22). The new Type-I Fire Pumper Apparatus purchased by the project developer and operated from Fire Station 94 at 16502 W. Schulte Road on an interim basis, would be reassigned to the permanent fire station once constructed. Impact fees that have been collected from existing development would also be applied to the new fire station, though additional funding may be needed from the project developer to ensure timely purchase of the new Type-I Fire Pumper Apparatus. This is addressed in the following mitigation measure:

MITIGATION MEASURES

> ***Mitigation Measure 16:*** *In order to provide adequate fire protection and suppression services to the project site, the developer shall fund the cost of a new Type-I Fire Pumper Apparatus (up to the estimated cost of said equipment assumed in the Citywide Public Safety Master Plan dated 3/21/13, not to exceed the total amount of $500,000) before issuance of the 151st building permit for the project as follows: the developer shall pay applicable public safety impact fees on a per-unit basis, and shall pay the remaining amount of said funding due (after crediting the amount of public safety impact fees already paid) no later than issuance of the 151st building permit for the project. Since said funding exceeds the developer's pro rata fair share of applicable public safety impact fees, the developer shall be eligible for fee reimbursement of costs paid for the Type-I Fire Pumper Apparatus that are above and beyond developer payment of applicable impact fees pursuant to the City's Municipal Code, as other development projects post impact fee payments with the City.*

In addition, the 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 with mitigation incorporation**, and with application of the condition of approval related to facility funding and operations.

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, approximately 3.5 miles east of the Project site. 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.

The project will also be required to provide additional sources of funding to support what will be on-going operational costs for Fire and Police services in the project area (as well as for Public Works staffing services related to maintenance of landscaping and other improvements within the public right-of-way). The City will therefore impose a condition of approval on the project requiring the developer to establish and fund a Community Facilities District (CFD) or other lawful funding mechanism prior to issuance of any building permits for the project. Alternatively, the developer can propose, subject to City review and approval of an agreement which shall then be recorded, a source of direct funding that will ensure provision of Fire, Police, and Public Works maintenance services for the project area in perpetuity. This option would also be required to be met prior to building permit issuance. With City imposition of this condition of approval, impacts to Fire, Police, and Public Works maintenance services will be **less than significant.**

iii) Schools: Less than Significant. Implementation of the proposed project would result in population growth within the City of Tracy, which would likely increase enrollment at schools within the Tracy Unified School District. According to the School District's boundary maps, new elementary and middle school students residing at the Project site are expected to attend George Kelly Elementary School, and high school students would attend John C. Kimball High School.

George Kelly School consists of 10.02 acres located at 535 Mabel Josephine Road and serves students in grades K through 8th. According to the Tracy Unified School District School Facilities Needs Analysis (August 7, 2015), George Kelly School has a current capacity of 714 students. According to the California Department of Education, Education Demographics Unit, current enrollment at George Kelly is 1,125 students (resulting in a 411 student capacity deficit).

John C. Kimball High School consists of 61.42 acres located at 3200 Jaguar Run and serves students in grades 9th through 12th. Tracy Unified School District School Facilities Needs Analysis (August 7, 2015), John C. Kimball High School has a current capacity of 2,133 students. According

to the California Department of Education, Education Demographics Unit, current enrollment at John C. Kimball HS is 1,765 students (resulting in a 368 student capacity remaining).

The Tracy Unified School District (TUSD) Estimates that 0.1138 elementary school students (grades kindergarten through 5th), 0.0650 middle school students (grades 6th through 8th), and 0.1471 high school students (grades 9th through 12th) will be generated from each new single family detached (SFD) residential unit. Using this generation factor, the proposed project would be expected to generate an additional 25.7 elementary school students, 14.7 middle school students, and 33.2 high school students. The addition of these students would exceed the current capacity at George Kelly School, and would not exceed the capacity at Kimball High School. According to the Districtwide Facilities Master Plan the build-out projections of residential units currently planned within the School District boundaries (including the proposed project), future school facilities, or expansion of existing facilities may be required.

The TUSD performs needs analysis and adopts an annual budget allocating resources for new school facilities as they are warranted. The proposed project does not trigger the need for a new school directly, however it would contribute to existing capacity deficiencies within the TUSD service area, specifically at the George Kelly School. Any new school would require environmental review when it is proposed. The environmental review will determine if there would be an adverse physical impact associated with its construction.

The TUSD 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. Under the provisions of SB 50, a project's impacts on school facilities are fully mitigated via the payment of the requisite new school construction fees established pursuant to Government Code Section 65995. As such, the project's impacts to school services are **less than significant**.

iv) Parks. Less than Significant. Potential project impacts to parks and recreational facilities are addressed in the following Recreation 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 would increase demand on these facilities. 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. 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. Payment of the applicable impact fees by the project applicant,

and ongoing revenues that would come from taxes, would ensure that project impacts to libraries and public buildings are **less than significant.**

XV. RECREATION

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

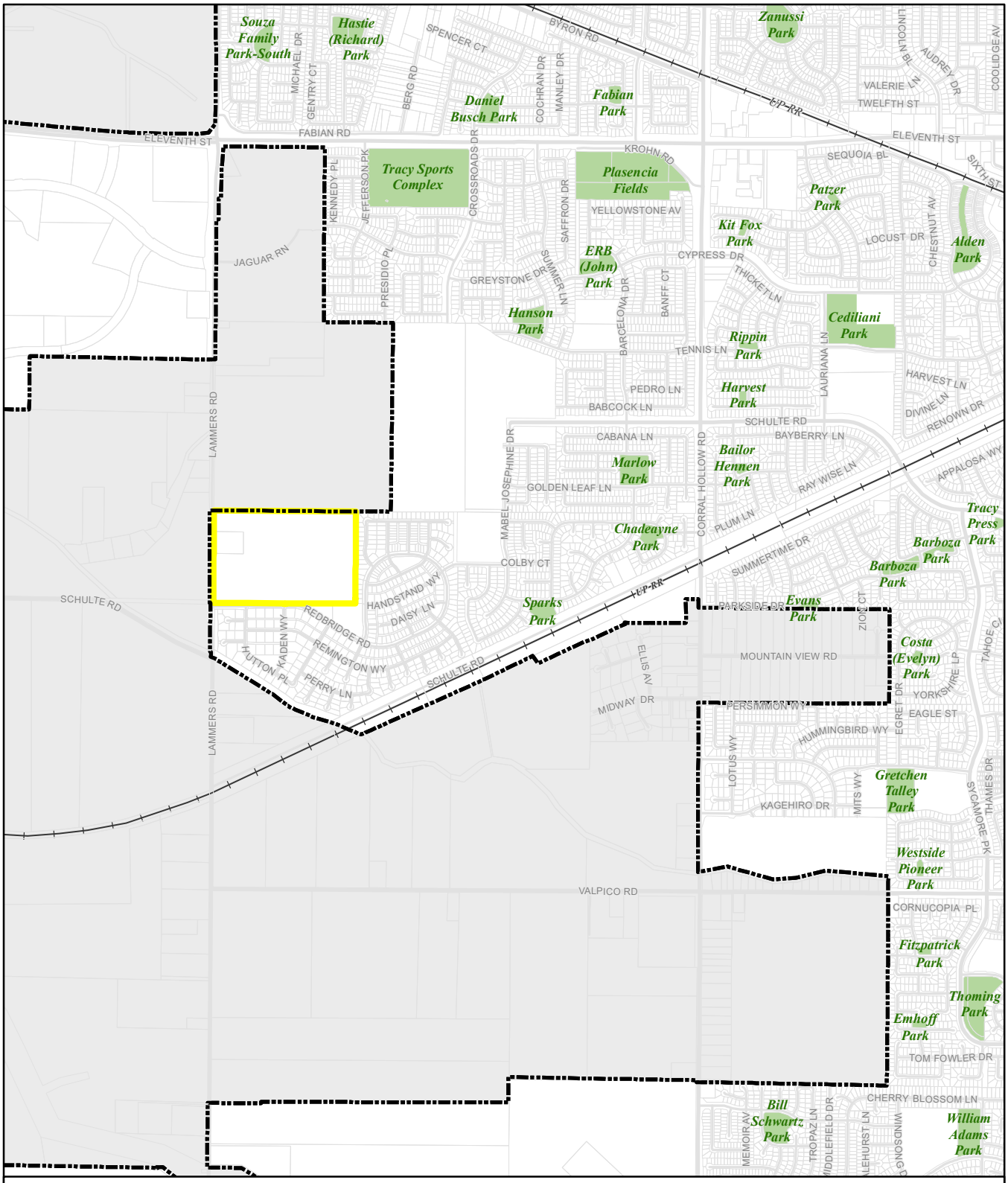
RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Less than Significant. The proposed project would increase demand for parks and recreational facilities within the City of Tracy, and would increase the use of the City's existing parks and recreation system. As described in the Tracy General Plan, the City maintains 48 mini-parks, 15 neighborhood parks, and eight community parks, providing approximately 256 acres at 71 sites. The City is also in the process of constructing the Holly Sugar Sports Park at the northern edge of the City, which will provide an additional 166 acres of sports parks, 86 acres of passive recreation area, and a 46-acre future expansion area for additional park facilities. Figure 10 displays current park locations in relation to the Project site.

The City strives to maintain a standard of 4 acres of park land for every 1,000 persons. In order to maintain this standard, the City requires new development projects to either include land dedicated for park uses, or to pay in-lieu fees towards the City's parks program. Chapter 13.12 of the Tracy Municipal Code states that, *"all development projects shall be required to maintain the City standard of four (4) acres of park land per 1,000 population. All development projects, as a condition of approval of any tentative parcel map or tentative subdivision map, or as a condition of approval of any building permit, shall dedicate land to the City or pay a fee in lieu thereof, or a combination of both, in order to maintain this City standard. The precise obligation of any development project to dedicate land or pay a fee pursuant to this section shall be incorporated in the implementing resolution for the park fee applicable to the development project."*

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 Conditions of Approval (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. Potential impacts associated with construction of the proposed onsite park are addressed throughout this Initial Study, given that the park site is within the area proposed for development and included in the project description. Additionally, given that the City maintains an ample and diverse range of park sites and park facilities, and collects fees from new development to fund the construction of new parks and the maintenance of existing parks, the additional demand for parks generated by

the proposed project would not result in the physical deterioration of existing parks and facilities within Tracy. As such, this is a **less than significant** impact and no mitigation is required.



Legend

- Project Boundary
- City of Tracy
- Parks

N

0 600 1,200

Feet

1:24,000

Sources: San Joaquin County GIS. Map date: November 9, 2015.

STRINGER SUBDIVISION MND
TRACY, CALIFORNIA

Figure 11: Parks Map

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XVI. TRANSPORTATION/TRAFFIC -- WOULD THE PROJECT:

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.?			X	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?.			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?			X	
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				X

RESPONSES TO CHECKLIST QUESTIONS

Response a), b): Less than Significant. In order to determine potential impacts related to traffic generated by the proposed project, a Traffic Impact Assessment (TIA) was prepared by Kimley-Horn and Associates in July 2015. In consultation with staff from the City of Tracy, it was determined that the following existing and planned intersections have the greatest potential to be impacted by the proposed project.

- Lammers Road / Crossroads Drive – New Intersection
- Project Driveway / Crossroads Drive – New Intersection
- Lammers Road / Redbridge Road
- Lammers Road / Old Schulte Road
- Byron Road / Grant Line Road

These intersections were addressed in the traffic assessment to determine if the project would result in an unacceptable level of service (LOS) under either existing (near-term) conditions, or cumulative (future) conditions with the addition of traffic generated by the proposed project. Level of service is a qualitative measure describing operational conditions at an intersection. The LOS generally describes these conditions in terms of average delay per vehicle. Six levels of service are defined and given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst.

The proposed project would generate new vehicular trips that would increase traffic volumes on the nearby street network. To assess changes in traffic conditions associated with the proposed project, the following roadway segments for evaluation in this traffic study include:

- Lammers Road – Crossroads Drive to Redbridge Road
- Lammers Road – Redbridge Road to Old Schulte Road
- Lammers Road – Old Schulte Road to Valpico Road
- Old Schulte Road – Hansen Road to Lammers Road
- Crossroads Drive – Lammers Road to Project Driveway
- Crossroads Drive – Project Driveway to New Schulte Road

Freeway Facilities

The Traffic Impact Assessment determined the project would add 0.1% or less traffic in either direction on the I-205 and I-580 freeways under cumulative conditions. This addition is insignificant. The project would pay Traffic Impact Fess to SJCOG and the City to offset incremental cumulative impacts as stated in the TIA. Therefore, impacts to freeway facilities will not be further evaluated.

Thresholds of Significance

Significance criteria are used to identify Project impacts. Currently, the City, SJCOG, and the County specify LOS thresholds that are utilized for roadways under their respective jurisdictions. The following significance criteria were used for the project's Traffic Impact Analysis and are consistent with the thresholds from the 2011 General Plan Update, SJCOG criteria, SJ County criteria, and Appendix G of the CEQA Guidelines. Accordingly, the Project would have a significant traffic impact under the jurisdiction of each of the following agencies if any of the criteria discussed below are met.

SAN JOAQUIN COUNCIL OF GOVERNMENTS

The CMP system for project condition analysis includes Lammers Road. Per the 2012 SJCOG CMP, the intersection LOS threshold is D.

CITY OF TRACY

The City has established LOS D, where feasible, as the minimum acceptable LOS for roadways and overall intersection operations (for roadways a v/c ratio of .80-.89 = LOS D). However, there are certain locations where this standard does not apply. The following provides a list and description of exceptions to the LOS D standard:

- LOS E or lower shall be allowed on streets and at intersections within 1/4 mile of any freeway, to discourage inter-regional traffic from using City streets.
- In the Downtown and Bowtie area of the City of Tracy, LOS E shall be allowed in order to create a pedestrian-friendly urban design character and densities necessary to support transit, bicycling, and walking.
- The City may allow individual locations to fall below the City's LOS D standard at intersections where construction of improvements is not feasible, prohibitively expensive, significantly impact adjacent properties or the environment, or have a significant adverse impact on the character of the community, including pedestrian mobility, crossing times, and comfort/convenience. Intersections may be permitted to fall below their adopted LOS standard on a temporary basis when the improvements necessary to preserve the LOS standard are in the process of construction or have been designed and funded but not yet constructed.

Signalized Intersections

- Signalized intersections operating at an acceptable level (LOS D or better if located more than ¼ mile from a freeway) degrade to an unacceptable LOS E or F.
- Addition of project trips causes a delay increase of more than four seconds to an intersection already operating at an unacceptable level.

Un-signalized Intersections

- Un-signalized intersections operating at LOS D or better degrade to an unacceptable LOS E or under (outside ¼ mile of a freeway), and LOS E or better degrade to an unacceptable LOS F (within ¼ mile of a freeway), and a traffic signal warrant is met.
- Addition of project trips causes a volume increase of more than 10 percent at an intersection operating at an unacceptable level and meeting a signal warrant.

Existing Intersection Traffic Counts

In preparing the traffic assessment, Kimley-Horn evaluated traffic operations at the study intersections under existing traffic conditions. Results of the analysis are presented in Table 12. Analysis sheets for LOS are provided in Appendix B of the Traffic Impact Analysis.

Table 12 summarizes the results of the intersection analysis under Existing Conditions for the a.m. and p.m. peak hours. Under Existing Conditions, all the study intersections except Lammers Road / Old Schulte Road operate at LOS D or better during both the a.m. and p.m. peak hours. The intersection of Lammers Road / Old Schulte Road currently operates at LOS E during the AM peak hour, which is below the City's LOS D standard.

TABLE 12: INTERSECTION LOS- EXISTING CONDITIONS

#	Intersection	Control Type	Existing Conditions					
			AM Peak Hour			PM Peak Hour		
			Movement	Delay	LOS	Movement	Delay	LOS
1	Lammers Road / Crossroads Drive	Does Not Exist	-	-	-	-	-	-
2	Crossroads Drive / Project Driveway	Does Not Exist	-	-	-	-	-	-
3	Lammers Road / Redbridge Road	SSSC	Overall	6.8	A	Overall	3.3	A
		Worst Approach	WB	34.6	D	WB	13.0	B
4	Lammers Road / Old Schulte Road	AWSC	Overall	**40.8**	**E**	Overall	14.7	B
5	Byron Road / Grant Line Road	Signal	Overall	18.0	B	Overall	47.5	D

Notes:

1. Analysis performed using HCM 2010 methodologies.
2. Delay indicated in seconds/vehicle.
3. Overall level of service (LOS) standard for the City is D.
4. Intersections that fall below City standard are shown in **bold.**

Project Trip Generation

Kimley-Horn developed estimated project trip generation for the proposed project using the Trip Generation Rates developed for the City of Tracy travel demand model as cited in the City of Tracy Transportation Master Plan (November 2012). The City developed the travel demand model in order to customize the model to more accurately reflect real time travel patterns in the city, and more accurately determine roadway infrastructure needs.

Trip generation for the project was also calculated using the rates from the Institute of Transportation Engineer's publication *Trip Generation 9th Edition*[13], which is a standard reference used by jurisdictions throughout the county for the estimation of trip generation. Since the City of Tracy specifies its own rates, ITE rates are supplied for comparison purposes only. A trip is defined in *Trip Generation* as a single or one-directional vehicle movement with either the origin or destination at the Project site. In other words, a trip can be either "to" or "from" the site. In addition, a single customer visit to a site is counted as two trips (i.e., one to and one from the site).

For purposes of determining the worst-case impacts of traffic on the surrounding street network, the trips generated by a proposed development are typically estimated between the hours of 7:00-9:00 AM and 4:00-6:00 PM on weekdays. Trip generation calculations prepared per ITE methodology are based on the number of residential dwelling units. Additionally, since the property is single use residential, no internal capture, linked trip, or pass-by trip reductions were considered. Table 13below shows trips generated by the proposed development based on both previously discussed standards. As illustrated in Table 13, total project trips generated during the AM Peak using the City's rates are lower than total project trips generated using ITE's rates

[13] *Trip Generation, 9th Edition*, Institute of Transportation Engineers, 2012.

(124 vs. 168). During the PM Peak, total project trips generated using the City's rates are higher than total project trips generated using ITE's rates (237 vs. 219). Based on the City of Tracy rates, the project will generate 124 net new trips in the AM peak hour and 237 net new trips in the PM peak hour.

TABLE 13: PROJECT TRIP GENERATION

Land Uses	Project Size	AM PEAK HOUR				PM PEAK HOUR			
		Total Peak Hour	IN	/	OUT	Total Peak Hour	IN	/	OUT
Trip Generation Rates[1]									
Project Use									
Low/Mid Density Residential & Residential Real Estate		0.55	25%	/	75%	1.05	63%	/	37%
Trips Generated									
Project Use									
Low/Mid Density Residential & Residential Real Estate	226 DUs	124	31	/	93	237	149	/	88
Total Project Trips		**124**	**31**	**/**	**93**	**237**	**149**	**/**	**88**
Total Project Trips per ITE[2]		*168*	*42*	*/*	*126*	*219*	*138*	*/*	*81*
Comparison		*(44)*	*(11)*	*/*	*(33)*	*18*	*11*	*/*	*7*

Notes:

1. Trip Generation Rates developed for the City of Tracy travel demand model as cited in the City of Tracy Transportation Master Plan (November, 2012) were used in this study.
Source: Kimley-Horn and Associates, Inc., 2015

2. Trip Generation using ITE rates provided for comparison purposes only. The AM trip rate for the City is lower compared to ITE, but the PM City rate is higher. The City PM rate is also higher than all ITE rates, thus capacity needs are determined by the PM rate. The City PM rate provides for a more conservative analysis compared to ITE.

Project Trip Distribution and Assignment

Trip distribution is a process that determines in what proportion vehicles would travel between a Project site and various destinations outside the project study area. The process of trip assignment determines the various routes that vehicles would take from the Project site to each destination using the calculated trip distribution.

Due to the nature of the proposed development, most residents living at the proposed site are expected to travel predominantly to the north, where they will have access to the nearest retail land uses, schools, downtown, regional roadway (I-205), and major arterials (11th Street, Tracy Boulevard, and Grant Line Road).

The City of Tracy Travel Demand Model was used to determine the trip distribution and assignment. Applying the directional distribution provided by the Tracy Hills EIR for residential trips, the AM and PM trips for the site were calculated.

Existing Plus Project Conditions

From the Lammers Road / Crossroads Drive intersection, approximately 82% of the project trips would distribute northwards along Lammers Road and 18% would distribute southwards. Of the trips distributed to the north, 1% would be distributed onto Byron Road north of Grant Line Road and 9% would distribute along Grant Line Road, east of Byron Road to the City retail areas. The remaining traffic would be distributed to downtown, to 11th Street, Tracy Boulevard, Byron Road and the freeways. Of the trips distributed to the south, 5% would be distributed westwards on Old Schulte Road. The remaining 13% would be distributed on Lammers Road south of Old Schulte Road to Linne Road.

In the morning peak, 124 peak hour trips will be generated, of which 31 trips will enter the site and 93 trips will exit the site. In the afternoon peak, 237 trips will be generated, of which 149 trips will enter the site and 88 trips will exit the site.

Cumulative (2035) Plus Project Conditions

From the Project Driveway on Crossroads Drive, approximately 67% would distribute west on Lammers Road and 33% would distribute east along Crossroads Drive and eventually continue north. 49% of the project trips would distribute northwards along Lammers Road and 18% would distribute southwards on Lammers Road. The trips distributed to the north would be distributed onto I-205, 11th Street, and Byron Road (southbound). Of the trips distributed to the south, 5% would be distributed westwards on Old Schulte Road. The remaining 13% would be distributed on Lammers Road south of Old Schulte Road.

In the morning peak 124 peak hour trips will be generated, of which 31 trips will enter the site and 93 trips exit the site. In the afternoon peak hour 237 trips will be generated, of which 149 trips will enter the site and 88 trips will exit the site.

Level of Service Analysis- Existing plus Project Conditions

Traffic operations were evaluated at the study intersections under Existing Plus Project conditions. Table 14 shows the results of the LOS analysis for the study intersections under Existing Plus Project Conditions.

TABLE 14: INTERSECTION LOS- EXISTING PLUS PROJECT CONDITIONS

		Existing Conditions				*Existing Plus Project Conditions*			
Intersection	**Control Type**	**AM Peak Hour**		**PM Peak Hour**		**AM Peak Hour**		**PM Peak Hour**	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Lammers Road / Crossroads Drive	SSSC	--	--	--	--	1.6	A	2.6	A
	Worst Approach WB	--	--	--	--	17.4	C	12.4	B
Crossroads Drive / Project Driveway	Roundabout	--	--	--	--	8.3	A	6.1	A
Lammers Road / Redbridge Road	SSSC	6.8	A	3.3	A	7.1	A	3.2	A
	Worst Approach WB	34.6	D	13	B	**36.8**	**E**	13.5	B
Lammers Road / Old Schulte Road	AWSC	**40.8**	**E**	14.7	B	**41**	**E**	16.7	C
Byron Road / Grant Line Road	Signal	18	B	47.5	D	18.3	B	51.2	D

Notes:
1. Analysis performed using HCM 2010 methodologies.
2. Delay indicated in seconds/vehicle.
3. Overall level of service (LOS) standard for the City is D.
4. Intersections that fall below City standard are shown in bold.
5. Sidra was used to analyze the roundabout at Crossroads Drive / Project Driveway.
6. SSSC - side-street stop-controlled
7. AWSC- all-way stop-controlled

Source: Kimley-Horn and Associates, Inc. 2015

As shown in Table 14 above, all the intersections would operate at acceptable levels of service, except for Lammers Road / Redbridge Road, and Lammers Road / Old Schulte Road (LOS E) AM Peak Hour under Existing Plus Project Conditions. However, the addition of the project traffic does not increase by more than 10% of existing volumes (the City significance threshold), and thus the project has no significant impact at these intersections.

Under existing plus project conditions, the proposed project would have a **less than significant** impact, and no mitigation is required.

Cumulative plus Project Traffic Analysis

Cumulative Conditions 2035 represent build out of the City of Tracy Transportation Master Plan (City TMP). Traffic volumes for 2035 were forecasted using the most recent update to the City of Tracy Travel Demand Model (TDM). This scenario addresses cumulative intersection and roadway operations on the future transportation network as discussed in the City TMP. Table 15 shows the results of the LOS analysis for the study intersections under Cumulative plus Project Conditions.

TABLE 15: INTERSECTION LOS- CUMULATIVE PLUS PROJECT CONDITIONS

		Cumulative Conditions				*Cumulative Plus Project Conditions*			
Intersection	**Control Type**	**AM Peak Hour**		**PM Peak Hour**		**AM Peak Hour**		**PM Peak Hour**	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Lammers Road / Crossroads Drive	Signal	23.9	C	4.3	A	24.5	C	7.9	A
Crossroads Drive / Project Driveway	Roundabout	2.7	A	3.2	A	3.5	A	3.5	A
Lammers Road / Redbridge Road	SSSC	**41.2**	**E**	**47.8**	**E**	**43.1**	**E**	**52.1**	**F**
	Worst Approach WB	**533.8**	**F**	**1387.2**	**F**	**562.9**	**F**	**1541.9**	**F**
Lammers Road / Old Schulte Road	Signal	11.3	B	32.8	C	12.8	B	33.8	C
Byron Road / Grant Line Road	Does Not Exist	--	--	--	--	--	--	--	--

Notes:
1. Analysis performed using HCM 2010 methodologies.
2. Delay indicated in seconds/vehicle.
3. Overall level of service (LOS) standard for the City is D.
4. Intersections that fall below City standard are shown in bold.
5. Sidra was used to analyze the roundabout at Crossroads Drive / Project Driveway.
Source: Kimley-Horn and Associates, Inc. 2015

As shown in Table 15, the intersection of Lammers Road / Redbridge Road would operate at an overall unacceptable LOS during the AM and PM peak hours under Cumulative, and Cumulative Plus Project conditions, and does not meet the City's LOS criteria. However, the additional project generated traffic does not increase by more than 10% of existing volumes (the City significance threshold), and thus traffic from the proposed project would have a less than significant impact at this intersection.

The intersection of Lammers Road / Redbridge Road operates at an unacceptable LOS in the Cumulative and Cumulative Plus Project conditions due to the projected growth along Lammers Road by the year 2035. Installing a signal at this intersection would mitigate the unacceptable operation. This is however not a project impact. The City will include signalization of this intersection as a CIP project in the City Transportation Impact Fee Program when the intersection signal warrant is met and the threshold is exceeded. The project will be required to pay the SJCOG and the City Transportation traffic impact fees. These programs include the development of Travel Demand Management (TDM) principles such as: ride and car sharing, ride match assistance, preferential car pool parking, flexible work schedules and telecommute, van pool assistance, employer shuttles, and bicycle racks, lockers and showers. 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 project applicant will also be required to coordinate with SJCOG to assess traffic impact fees schedules.

With a signal control installed at Lammers Road / Redbridge Road the intersection will operate at acceptable LOS A. Therefore, under cumulative conditions, the proposed project would have a **less than significant** impact on intersection operations, and no mitigation is required.

As demonstrated above, the project will not cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections); nor would project-generated traffic cause traffic levels to exceed, either individually or cumulatively, an adopted level of service standard.

Response c): Less than Significant. The Tracy Municipal Airport is the closest airport to the Project site, located approximately 2.5 miles southwest of the site. The Airport is a general aviation airport owned by the City and managed by the Public Works Department. As discussed previously in the Hazards section, the Project site is not located within any of the safety restriction zones or within the airport influence area as designated by SJCOG. The proposed project includes single and two-story residential structures that would not protrude into active airspace, or disrupt aviation patterns. The distance, and development characteristics precludes the possibility of the proposed project altering aviation patterns or creating aviation hazards. Additionally, the addition of 226 single-family units would not be expected to significantly increase air travel demand. Therefore, Implementation of the proposed project would not result in any needed changes to airport operations or air travel patterns at the Tracy Municipal Airport. This impact is **less than significant,** and no mitigation is required.

Responses d) and e): **Less than Significant.**

Based on the preliminary site plan driveway access to the site will be off Crossroads Drive. Primary access to the site will be off Crossroads Drive via M Street. A secondary access and /or Emergency only vehicle (EV) access will be provided from Street L onto Crossroads Drive, once Crossroads Drive is built out, which will occur with future development to the north of the Project site.

The proposed site plan provides adequate access to the Project site, which would adequately accommodate emergency 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. This is a **less than significant** impact and no mitigation is required.

Response f): No impact. The project would have no impact on any existing plans or policies related to alternative transportation.

Lammers Road will be a transit route in the future as identified in the City TMP. Typically bus stops are provided at intersections where pedestrian access will be provided and it is anticipated that a future bus stop in each direction of travel (pull-outs) will be located on Crossroads Drive east of the proposed project's driveway.

Goal CIR-3 of the General Plan provides for safe and convenient bicycle and pedestrian travel as alternative modes of transportation in and around the City. This goal includes several policies that are designed to enhance safe and convenient travel for bicyclists and pedestrians. Policies P4 and P6 under CIR-3 state that the City's bicycle and pedestrian system shall have a high level of connectivity, and that new development shall include pedestrian and bicycle facilities internal to the development, and which connect to citywide facilities, such as parks, schools, and

recreational corridors. The project on-site streets and the adjacent City street network (Crossroads Drive and Lammers Road) include pedestrian and bicycle facilities. To establish a connection from the existing Project site to the City system, the project shall construct an interim pedestrian and bicycle facility along the east side of Lammers Road from Crossroads Drive to the Kimball High school, where it will connect with the existing pedestrian system. This will be a condition of approval for the proposed project. Future transit stops and routes are identified in the TMP provide mode choice opportunities to project residents.

As described previously, the project applicant will pay the SJCOG and the City Transportation traffic impact fees. These programs include the development of Travel Demand Management principles such as:

- Ride and car sharing
- Ride match assistance
- Preferential car pool parking
- Flexible work schedules and telecommute
- Van pool assistance
- Employer shuttles
- Bicycle racks, lockers and shower

Project implementation would assist the City in providing connections and access to alternative transportation in the project area. Therefore, in regard to this environmental topic there is **no impact**.

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

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		X		
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e) 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	
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b) and e): 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 mgd in 2008. Currently with the final completed phase the City plans to expand the average dry weather flow treatment capacity of the Plant from 9.0 million gallons per day to 16.0 million gallons per day. The expansion also will result in improvements to the quality of the effluent discharged from

the Plant by upgrading the facility from secondary to tertiary treatment. Design plans on the expansion will commence by late 2016.

The City's WWTP currently treats approximately 9.0 mgd of wastewater. City residents generated an average dry weather flow (ADWF) of 7.6 million gallons per day (mgd). The City's wastewater treatment plant (WWTP), has an ADWF design capacity of 10.8 mgd.[14] For this analysis, a unit generation factor of 264 gallons per day of wastewater per residential unit was used.[15] Therefore, the proposed project would generate up to 59,664 gallons per day of wastewater, or 0.05996 mgd of wastewater. The addition of 0.0596 mgd of wastewater would not exceed the current treatment capacity of the City's WWTP, and the addition of project-generated wastewater would not result in any RWQCB violations related to effluent treatment or discharge. As of January 2015, the City had an unused capacity of approximately 4,200 EDU's (Equivalent Dwelling Units, equal the wastewater demand generated by a single-family residence) within its wastewater treatment plant (WWTP), available to new development within the City on a first-come, first-served basis. These EDU's are currently available to serve the proposed project, which would generate a wastewater demand of 226 EDU's.

As other development projects within the City come forward, and building permits are issued, this remaining capacity will be reduced. Accordingly, as noted above and to ensure that capacity at the WWTP is available and sufficient to respond to planned future development demands, the City is proceeding with the next phase of expansion of the WWTP, which has been approved by the City and subject to comprehensive environmental review under the California Environmental Quality Act, as documented in that certain environmental impact report certified by the City in November 2002 under State Clearinghouse Number 2000012030.

The development of the 226 units of the project would be required to pay sewer impact fees at time of building permit issuance, ensuring fair-share contribution towards the future WWTP expansion project. With this condition of approval, impacts related to City sewer services will be **less than significant**.

Response d): Less than Significant. Potable water for the proposed project would be supplied from the City's municipal water system. 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 2011 City of Tracy Urban Water Management Plan, Tracy's maximum annual water supply amounts to over 31,500 acre feet per year from its various supply sources. Future agreements may increase the City's available potable water supply to over 49,500 acre-feet per year.

[14] http://www.ci.tracy.ca.us/documents/Tracy_Wastewater_Master_Plan.pdf (does not take into account increased capacity with upgrades)
[15] Wastewater Flow and Loading Generation Factors Tracy Wastewater Master Plan (Low Density Residential wastewater generation factor)

In recent years, demand for potable water in the City of Tracy has been trending downward. As of 2010 the total water demand in the City was 16,603 afy.

Based on the Hydraulic Evaluation completed for the proposed project (West Yost Associates) in May 2015, the project's water demand is estimated to increase the demand for the City's municipal potable water supplies by up to 129 acre feet per year (afy), which accounts for residential water usage, and landscape irrigation. Water delivery piping upsizing is planned northeast of the Project site to serve existing and future area development as indicated in the Citywide Water System Master Plan buildout potable water system pipeline improvements.

The Project site would receive potable water via a connection to an existing water system as indicated in the Hydraulic Evaluation. The project is proposed to be primarily served by 8-inch or 12-inch diameter on-site water mains, connected to the existing 20-inch diameter water main on South Lammers Road, and to the existing 12-inch diameter water main located on Redbridge Road. The proposed connections to these two existing water mains provides for a looped connection of the project to the City's Pressure Zone 2 water distribution system consistent with recommendations from the 2012 Citywide Water System Master Plan.

Based on West Yost's analysis, the existing and proposed pipelines serving the project are adequate to meet the required minimum pressure and maximum pipeline velocity during a peak hour demand condition.

The additional water demand (129 AFY) of the proposed project would not exceed the City's available water supply. The City's water treatment and conveyance infrastructure is adequate to serve existing demand, in addition to the demand created by the proposed project. This is a **less than significant** impact and no mitigation is required.

Responses c): Less than Significant with Mitigation. Development of the Project site would place impervious surfaces on portions of the 59.1-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. Best management practices (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.

The project would be designed and constructed with an on-site temporary storm drainage basin that would remain in place until the downstream storm drain system is constructed northeast of the site as indicated by the City public works department. The temporary basin will be located in the northeast corner of the Project site. A preliminary engineering study has been completed for the Project site by Carlson Barbee & Gibson Inc. Civil Engineering services. The report has determined that 13.30 acre feet of storage capacity is needed to accommodate project stormwater requirements. The basin area would account for a total surface area of 74,250 square feet (1.7 acres).[16] The construction of the temporary stormwater conveyance and detention

[16] Temporary retention basin sized per Section 5 of the City of Tracy Engineering Design and Construction Standards.

system, would ensure that the project is consistent with all applicable plans and regulations related to stormwater conveyance and detention as required by the city, and would ensure that offsite, or onsite flooding does not occur during storm events. Permanent onsite storm drainage would be installed to serve the proposed project. The collection system would consist of inlets and underground piping. 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.

Because the Project site could increase runoff, and create downstream drainage problems; project impacts to stormwater are considered potentially significant.

Mitigation Measure 20 identified in the Tracy Citywide Storm Drain Master Plan (Mitigated Negative Declaration 2012) requires that prior to the issuance of grading permits, new development shall be required demonstrate to the satisfaction of the City Engineer that it has incorporated storm drainage facilities that conform to the SDMP and the City's SWQC Manual or that it has incorporated temporary retention facilities when downstream SDMP facilities are not constructed or operational.

All of the storm drainage facilities required for the proposed project would be located on the project site. As such, there is no potential for the project to result in environmental impacts associated with the construction of off-site drainage facilities. The environmental impacts associated with the construction of onsite drainage facilities fall within the project "footprint" and have been addressed throughout this environmental document.

The following mitigation measure requires the project applicant to install a drainage system that meets this performance standard and, prior to issuance of grading permits, provide a drainage plan and report to the City of Tracy for review and approval. With the implementation of the following mitigation measure, drainage impacts would be reduced to **less than significant**.

MITIGATION MEASURE

> ***Mitigation Measure 17:*** *Prior to the issuance of a building or grading permit, the project applicant shall submit a drainage plan to the City of Tracy for review and approval. The plan shall include an engineered storm drainage plan that demonstrates attainment of pre-project runoff requirements prior to release and describes the volume reduction measures and treatment controls used to reach attainment consistent with the Tracy Citywide Storm Drain Master Plan.*

Responses f) and g): 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.[17] 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 residential developments. The proposed project would not generate hazardous waste or waste other than common household solid waste. 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.

[17]Source: California Integrated Waste Management Board, Solid Waste Information System (SWIS). http://www.ciwmb.ca.gov/SWIS

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE --

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Does the project have the potential to 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, 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) 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 mitigated to a less than significant level. The proposed project would be required to implement mitigation measures aimed at reducing stormwater pollutants and runoff through Mitigation Measure 12, 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, Mitigation Measure 7 requires the SJMSCP Monitoring Plan an Annual Report process, Biological Monitoring Plan, SJMSCP Compliance Monitoring Program, and the SJMSCP Adaptive Management Plan. The project proponent shall seek coverage under the SJMSCP to mitigate for habitat impacts to covered special status species that would reduce any potentially significant impacts to a less than significant level. Through the full mitigation of biological impacts, the project would not result in any cumulative impacts, related to biological resources. These are **less than significant** impacts.

Response b) As described throughout the analysis above, the proposed project would not result in any significant individual or cumulative impacts that would not be mitigated to less than significant levels. Therefore, these are less **than significant impacts**.

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 standards and mitigation measures to reduce any potentially significant impacts on humans to less than significant levels. A variety of mitigation measures 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, these are **less than significant** impacts.

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