

TO: HONORABLE CHAIRMAN AND PLANNING COMMISSIONERS

FROM: WARREN FRACE, COMMUNITY DEVELOPMENT DIRECTOR

SUBJECT: ERSKINE- INDUSTRIAL PARK GENERAL PLAN AMENDMENT -
GENERAL PLAN AMENDMENT 14-001, REZONE 14-001, VESTING
TENTATIVE TRACT 3069 and OAK TREE REMOVAL 14-005
(APN: 025-435-031, 030 and 029)

APPLICANT: TOM ERSKINE – RANCH AND COAST PROPERTIES, INC.

DATE: JULY 12, 2016

Needs: For the Planning Commission to consider an application filed by Kirk Consulting on behalf of Tom Erskine and Ranch and Coast Properties, Inc., proposing to subdivide three (3) existing parcels, (APNs 025-435-029, 030, and 031) totaling 212 acres into 13 lots that would total 77.3 acres, and one (1) 134.7 acre remainder lot. Along with the subdivision is a request to amend the General Plan and Zoning designations of the 77.3 acres (Lots 1-13), and rezone lots 9, 10 & 11 of Tract 2778, adjacent to proposed Tract 3069. There is also a request to remove one (1) oak tree.

Facts:

1. The project is located at the eastern end the northeastern area of the City of Paso Robles, at the eastern end of Wisteria Lane, east of Golden Hill Road, north of State Route 46 East. See Attachment 1 – Project Location Map and Attachment 2 – Project Description.
2. In order to accommodate the proposed project, it is necessary to: (1) amend the General Plan - Land Use Element, land use designation diagram; (2) Zoning Map; (3) process Vesting Tentative Tract 3069; and (4) process a request to remove one oak tree as follows:

a) General Plan Amendment

To change the existing land use designations as follows:

- **Lots 9-11 (Tract 2778):** Business Park to Commercial Services
- **Lot 1:** Ag/Parks and Open Space to Commercial Services
- **Lots 2:** Ag/Parks and Open Space to Commercial Services
- **Lot 3:** Ag/Parks and Open Space to Business Park
- **Lots 5-12:** Parks & Open Space to Business Park
- **Lot 13:** Ag/Parks & Open Space to Business Park
- **Remainder Parcel and Lot 4:** No changes proposed

See Attachment 3 – Land Use Map Amendment.

b) Zoning Amendment

To change the existing zoning designations as follows:

- **Lots 9-11 (Tract 2778):** PM (Planned Industrial) to C3-PD (Commercial/Light Industrial -Planned Development Overlay)
- **Lots 1-2:** RA-PD (Residential Ag, Planned Development) to C3-PD (Commercial/Light Industrial-Planned Development Overlay)
- **Lot 3:** RA-PD (Residential Ag, Planned Development) and POS (Parks & Open Space) to C3-PD (Commercial/Light Industrial – Planned Development Overlay)
- **Lots 5-12:** POS (Parks & Open Space) to PM-PD (Planned Industrial, Planned Development Overlay)
- **Lot 13:** RA-PD (Residential Ag, Planned Development) and POS (Parks & Open Space) to PM-PD (Planned Industrial, Planned Development Overlay);
- **Remainder Parcel and Lot 4:** No changes proposed

See Attachment 4 – Zoning Map Amendment.

c) Vesting Tentative Tract Map 3069

- A request to subdivide three (3) existing parcels, APNs 025-435-029, -030, and -031, totaling 212 acres into 13 lots that would total 77.3 acres and one 134.7-acre remainder lot.
- The map includes a 2-lane arterial road which will be improved through the project site terminating at a cul-de-sac at the eastern edge of Lot 7 and 8. An offer of dedication is being provided as part of the project extending from the cul-de-sac to the southeastern edge of the property. The offer of dedication is intended to facilitate the future connection to Airport Road consistent with the General Plan Circulation Element. The subdivision recognizes the City's future plans and has been designed to accommodate the future road.
- A request to approve 'Erskine Parkway' as the new street name for the new connection road.

See Attachment 5 – Tract Map.

d) Oak Tree Removal 14-005

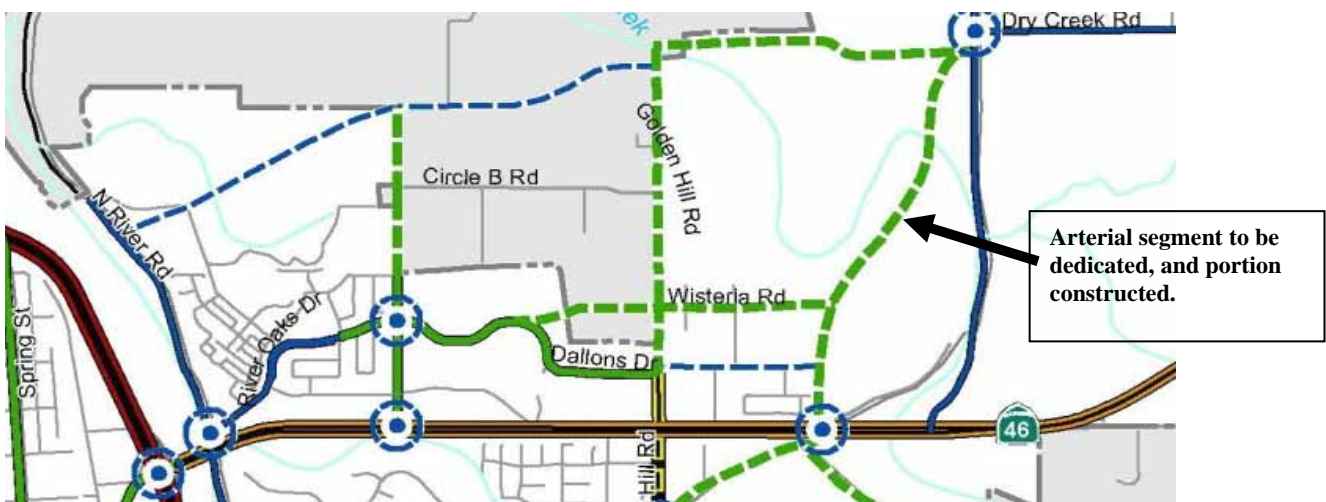
- Request to remove one 48-inch Valley Oak tree (Tree No. 19) located on proposed Lot 7.

See Attachment 6 – Arborist Report.

3. Subdividing the 77-acre area into 13 lots would be consistent with the type of development in the neighboring Golden Hills Business Park. As a result of the General Plan Amendment and Rezone, the zoning and land use designation for a majority of the lots within Tract 3069 would be PM-PD, similar to the existing business park, except for lots 1-3, and Lots 9-11 of Tract 2778, which would be C3-PD. C3-PD zoning currently exists in the area to the south, along Tractor Street and Combine Street.
4. The tentative subdivision map provides a vital component of the City's Circulation Element by providing most of the right-of-way for the "Connection Road" between the "interchange" at Union Road - Highway 46E and the northerly extension of a connecting road to Airport Road. Additional right-of-way is needed to accommodate a new Connection Road – Airport Road intersection in the northeast corner of the Remainder Parcel.

The City can construct a bridge or other crossing in this right-of-way over the Huer Huero Creek and extend a connection from Airport Road to Wisteria Lane. This route allows Airport area employee and business traffic to avoid Highway 46E in getting to and from downtown.

As a result of this project dedicating the necessary right-of-way for the Connection Road, the project will mitigate its "fair share" of traffic impacts on site and adjacent to this project. Improvements include: (1) constructing the road within the boundaries of tentative subdivision map; (2) striping for bike lanes on the existing Wisteria Lane and the new Connection Road; and (3) payment of traffic impact fees with all future development. Therefore, this project will be able to mitigate its impacts without the requirement to participate in improvements at the off-site intersections described in the project traffic study.



Circulation Element Diagram

5. In accordance with Action Item 2 of Policy C-1A of the Conservation Element of the General Plan, and concurrent with recordation of the Phase 1 Final Map, a non-exclusive easement shall be provided to the City of Paso Robles over the area identified as the 100-year flood plain of Huer Huero Creek. The purpose of the easement is to allow groundwater recharge within the riverbed.
6. In accordance with Action Item 3 of Policy PR-1B of the Parks and Recreation Element and Action Item 2, concurrent with recordation of the Phase 1 Final Map, a 40-ft wide public trail easement shall be dedicated to the City of Paso Robles, as identified in Exhibit C. The purpose of the easement is to allow a future multi-purpose public trail connection for bicyclists and pedestrians between an existing City-owned property on Huer Huero Creek and Airport Road.
7. The project is located in proximity to the Paso Robles Municipal Airport and is subject to the requirements within the Airport Land Use Plan. The project is within the approach zones defined as Airport Safety Zones 2, 3, and 4. Uses such as light-industrial, warehousing, and commercial uses are permitted in the PM and C3 zones, as outlined in Table 6 of the Airport Land Use Plan, respective of each Safety Zone. Safety Zone 2 prohibits structures, congregations of equipment or vehicles, or public venues within 250 feet of the extended runway center line. Building envelop lines have been identified on lots 7-10 to ensure structures and uses are not located within the runway setback limitations outlined in Table 5 of the ALUP.

The design of the lots, with the building envelope lines prohibiting development within Zone 2, and the policies and guidelines listed in the Airport Land Use Plan detail mitigation measures to reduce safety hazards for people working in the project area. Any future development would be required to comply with these policies reducing the impacts to less than significant.

8. This project was reviewed by the County Airport Land Use Commission on June 29, 2016, where it was found to be consistent with Airport Land Use Plan, as conditioned.
9. The 135-acre Remainder Lot would encompass the Huer Huero Creek and the adjacent slopes. There is no development proposed on the Remainder Lot.
10. The future development of the parcels will be required to submit a Development Plan (PD), and any other required applications, depending on the proposed use. Each PD is required to be reviewed by the Planning Commission.
11. Tom Erskine has requested naming the new connection road 'Erskine Parkway'. Staff checked with both Emergency Services and the County to determine that this name would not be in conflict with any existing street names.

**Analysis
and**

Conclusion:

The applicant's primary goal for this project is to expand the existing Golden Hill Business Park to create a cohesive, unified extension of the business park. To enable this development, amendments to several plans and policies are necessary. Currently, the project site is part of a larger, rural area in the upper northeast area of the City, and is currently undeveloped. The property was previously used for dry-crop farming and cattle grazing.

As outlined in the facts section of this staff report, this project provides for the opportunity to meet General Plan goals and policies related to circulation, recycled water, and trails.

A Water Supply Evaluation (WSE) was prepared for this project by TODD Groundwater (March, 2016), which is provided as an attachment to the Initial Study/MND in Attachment 8. The WSE estimates the proposed project-related water demand, and water resources available to supply the project in the near- and long-term horizon, under normal, drought, and sustained drought conditions. Water demand includes water necessary to serve the proposed 13 lots, ranging in size from 2.2 to 13.9 acres with the potential of approximately 77 acres of development. There is no development proposed at this time, however, assumptions were made based on the maximum land use densities and minimum percent open space for various Airport Zones within the project area for each of the 13 lots, as well as landscaping in the public right-of-way. At buildout, the project will require about 33 acre feet per (AFY) year of City-supplied potable water. The WSE concludes that the existing and planned water resources available are adequate to provide a reliable long-term water supply for the project under normal and drought conditions.

There are several oaks within the project area that have the potential for being disturbed. The project proposes to remove one (1) oak tree (Tree No. 19). This tree is in poor condition and is necessary to remove to accommodate the new road extension. The Arborist Report also indicates that Tree No. 19, is in poor condition, has had past limb failures. It was also observed that the tree has a large split in the trunk, which extends entirely through in some areas. Tree protection is also required for work that may occur within the "critical root zone" of remaining trees. An Arborist Report (refer to Arborist Report, attached to the MND, Attachment 11) was prepared for this project and provides oak tree mitigation measures to reduce the potential impacts to a less than significant level.

If approved, this General Plan Amendment, Rezone, and Tentative Tract Map, would allow development of multiple infrastructure projects. These projects include:

- Providing the dedication for the connection road between Wisteria Lane and Airport Road, providing a “parallel route” consistent with the Circulation Element;
- Construction of the Connection Road within the boundaries of Vesting Tentative Tract 3069;
- Dedication of the easements to provide areas for ground water recharge within the Huer Huero Creek;
- Providing the easement for a public trail for pedestrians and bicycles along the project northern boundary of the remainder lot, consistent with the Parks and Recreation Element;
- Installation of water, sewer, and recycled water lines.

Based on these infrastructure projects it would appear that the approval of the proposed General Plan Amendment and Rezone would be a benefit to the City.

Policy

Reference:

General Plan Land Use Element, Zoning Code, Airport Land Use Plan, 2006 Economic Strategy, and Oak Tree Preservation Ordinance.

Fiscal

Impact:

It is anticipated that this project will be fiscally positive by providing needed infrastructure, as well as low-intensity commercial and industrial development that would provide for additional employment opportunities.

Options:

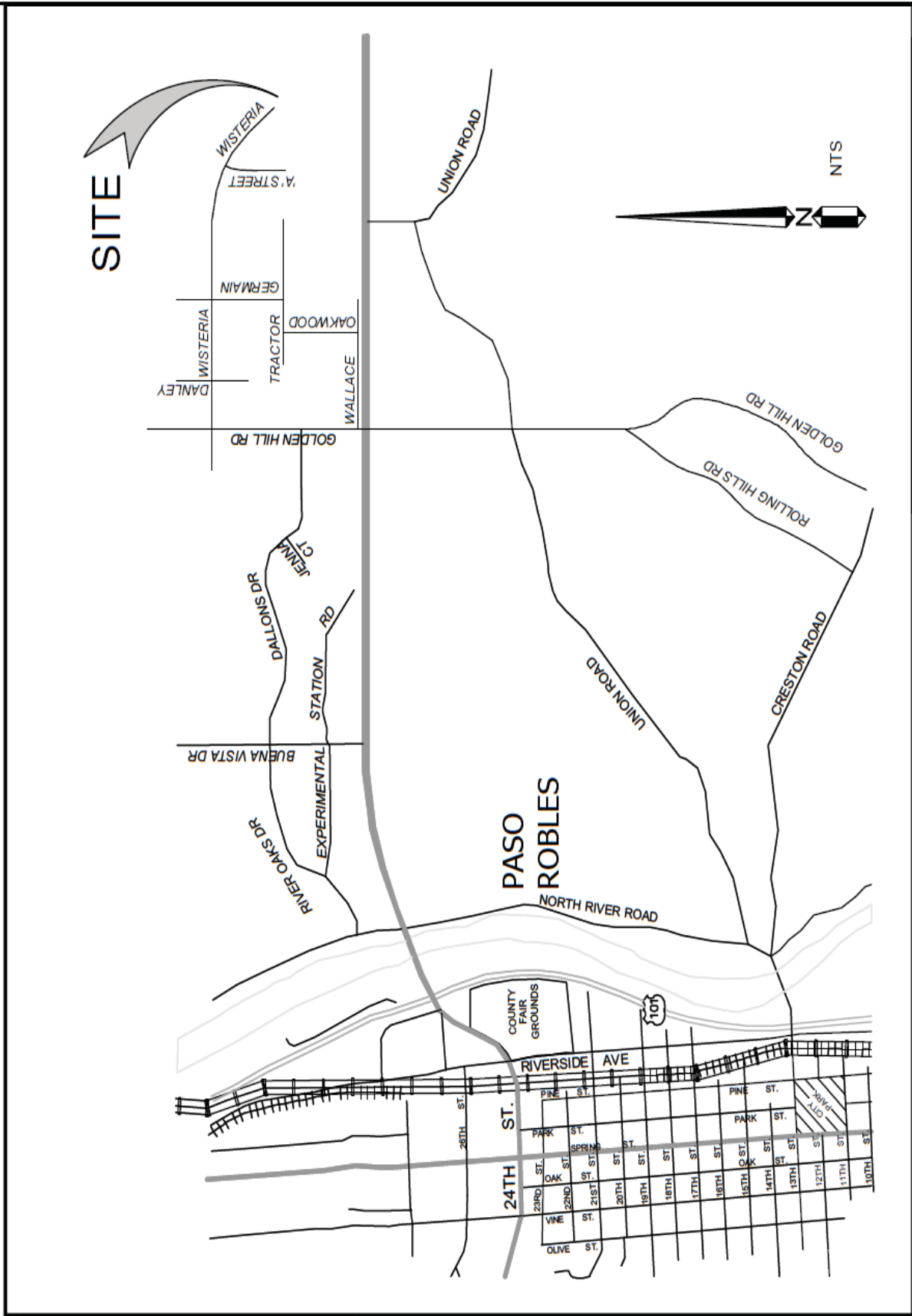
After opening the public hearing and taking public testimony, that the Planning Commission takes one of the four options listed below:

1. Recommend approval of the project to the City Council by approving the following resolutions:
 - a. Approve draft Resolution A, recommending that the City Council certify the project's Mitigated Negative Declaration and Mitigation Monitoring Program (Attachment 5).
 - b. Indicate support (via straw vote) for Part B of a two-part General Plan Amendment (GPA 15-002) to change the General Plan Land Use Map from as follows:
 - **Lots 9-11 (Tract 2778):** Business Park to Commercial Services;
 - **Lot 1:** Ag/Parks and Open Space to Commercial Services;
 - **Lots 2:** Ag/Parks and Open Space to Commercial Services;
 - **Lot 3:** Ag/Parks and Open Space to Business Park;
 - **Lots 5-12:** Parks & Open Space to Business Park;
 - **Lot 13:** Ag/Parks & Open Space to Business Park.
 - c. Approve draft Resolution C, recommending that the City Council adopt an ordinance amending the Zoning Map consistent with the General Plan Amendments (Attachment 7);
 - d. Approve draft Resolution D, recommending that the City Council approve Vesting Tentative Tract 3069, and approve 'Erskine Parkway' as the new street name for the new connection road, subject to Conditions of Approval and Findings (Attachment 8).
 - e. Approve draft Resolution E, recommending that the City Council approve OTR 14-005 (Attachment 9).
2. Amend the foregoing option.
3. Refer back to staff and/or the Development Review Committee for additional analysis.
4. Recommend denial by the City Council of one or more of the resolutions listed above (a-d). Recommendations of denial will be forwarded to City Council for a final decision.

Attachments:

1. Vicinity Map
2. Applicants Proposed Project Description and Master Development Plan
3. Vesting Tentative Map
4. Existing General Plan and Zoning Designations
5. Proposed General Plan and Zoning Map Designations
6. Draft Resolution A -
Recommending Approval to City Council of a Mitigated Negative Declaration
7. Draft Resolution B -
Recommending Approval to City Council of General Plan Land Use
8. Draft Resolution C -
Recommending Approval to City Council of Zoning Map Amendment Ordinance
9. Draft Resolution D - Recommending Approval to City Council the tentative tract map
10. Draft Resolution E - Recommending Approval to City Council OTR xxx
11. Draft Initial Study/Mitigated Negative Declaration, with Special Studies –
Exhibit A of Resolution A
12. Planning Commission Public Hearing Notice Affidavits

Attachment 1



VICINITY MAP



**RANCH COAST PROPERTIES INC. AND ERKSINE PROPERTY TRUST
GENERAL PLAN AMENDMENT AND 13 LOT VESTING TENTATIVE TRACT MAP
WISTERIA LANE, PASO ROBLES, CA 93446
APNs 025-435-029, 030, 031
*Updated July 2016***

GENERAL DESCRIPTION

The following application includes a General Plan Amendment / Zoning Map Amendment, and 13 Lot Vesting Tentative Tract Map. The proposal is to subdivide 3 existing parcels, APNs 025-435-029, 030, 031, into 13 lots and one remainder parcel. The application also includes a General Plan Amendment / Zoning Map Amendment, to re-designate the land use category for 12 of the 13 parcels in the proposed subdivision and three lots located in Tract 2778. No specific plans for use of the building sites on the individual lots are proposed at this time.

The site is located at the eastern end of Wisteria Lane in the City of Paso Robles, CA. It is currently accessed from Hwy 46 East, to Golden Hill Road (northern section) and onto Wisteria Lane. This is currently the only access. The City has slated future access to this site in the City's General Plan, Circulation Element. The Golden Hill Business Park and Lowe's shopping center is located to the west, the Ravine Water Park to the southeast, and agriculture land and single family residences to the east and north. The site has multiple land use designations (Planned Industrial, Residential Agriculture and Parks and Open Space) and is subject to the City of Paso Robles Airport Land Use Plan Safety Zone's 2-4.

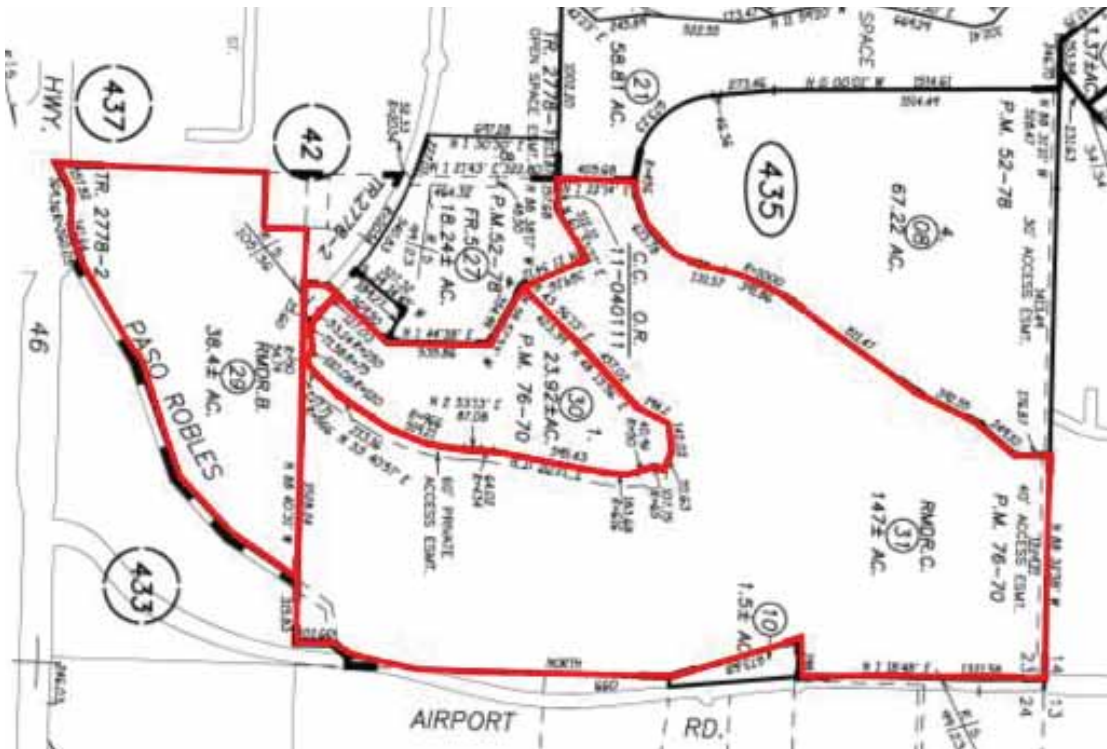
Vesting Tentative Tract Map

This application includes the subdivision of the three existing parcels on Wisteria Lane to create 13 parcels ranging in size from +/-2 acres to 13 acres and one remainder parcel of 134.0 acres. The resulting parcels are consistent with the lotting pattern of the surrounding land uses such as the Golden Hill Business Park and other commercial lots that are being developed in the area. The parcels have been sited in gently sloping areas that can easily accommodate future commercial development with minimal impacts to the environment. Building envelopes have been identified on the tentative map to ensure sensitive resources, such as oak trees, cultural sites and steeper slopes are retained and not impacted by future development.

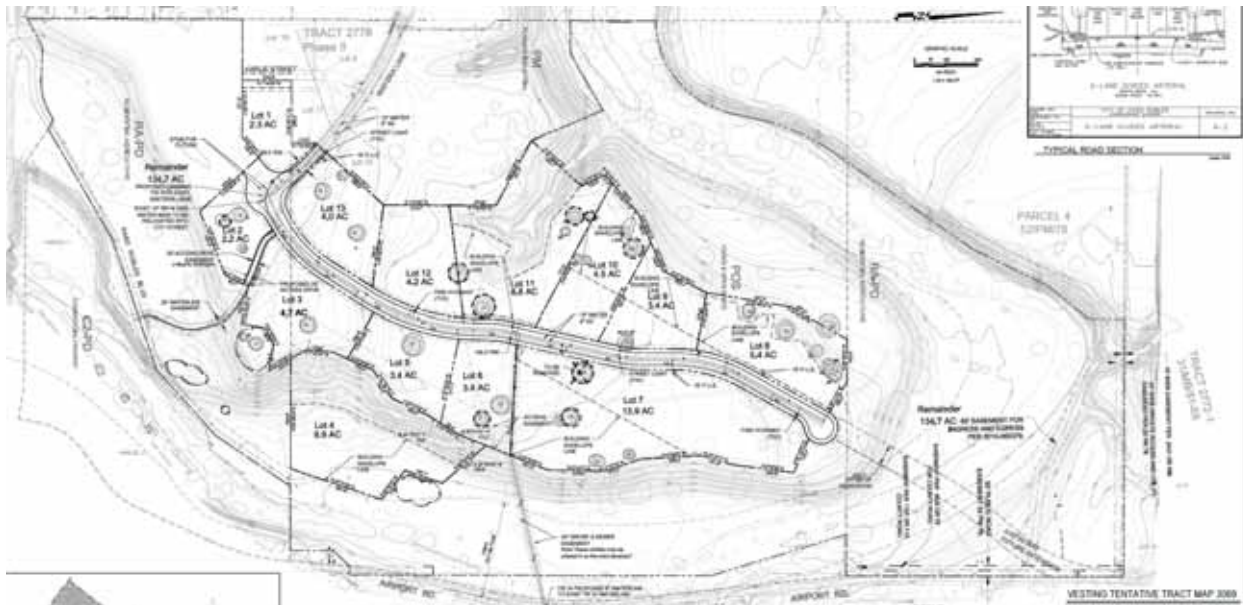
Attachment 2

July 2016

EXISTING PARCEL MAP 025-435-029, 030, 031



PROPOSED VESTING TENTATIVE TRACT MAP 3069



Attachment 2

July 2016

The map includes a 2-lane arterial access road which will be improved through the project site terminating at a cul-de-sac at the eastern edge of Lot 7 and Lot 8. An offer of dedication is being provided as part of the project extending from the cul-de-sac to the southeastern edge of the property. The offer of dedication is intended to facilitate a future connection to Airport Road consistent with the General Plan's Circulation Element. This subdivision recognizes the City's future plans and has been designed to accommodate them.



General Plan Amendment

The application is requesting the following amendments to the City of Paso Robles General Plan Land Use Designations for future uses:

- Lots 9-11 (Tract 2778): Business Park to Commercial Services
- Lot 1: Ag/Parks and Open Space to Commercial Services
- Lots 2: Ag to Commercial Services
- Lots 3: Ag / Parks and Open Space to Business Park
- Lots 5-12: Parks and Open Space to Business Park
- Lot 13: Ag / Parks and Open Space to Business Park
- Remainder Parcel and Lot 4 : No changes are proposed

Rezone Amendment

This portion of the application includes the rezoning of the following subdivided lots for future uses: (existing to proposed)

- Lots 9-11 (Tract 2778): Industrial to Commercial Light Industry (C3)
- Lots 1-2: Residential Agriculture Planned Development (RA) to Commercial Light Industry (C3)

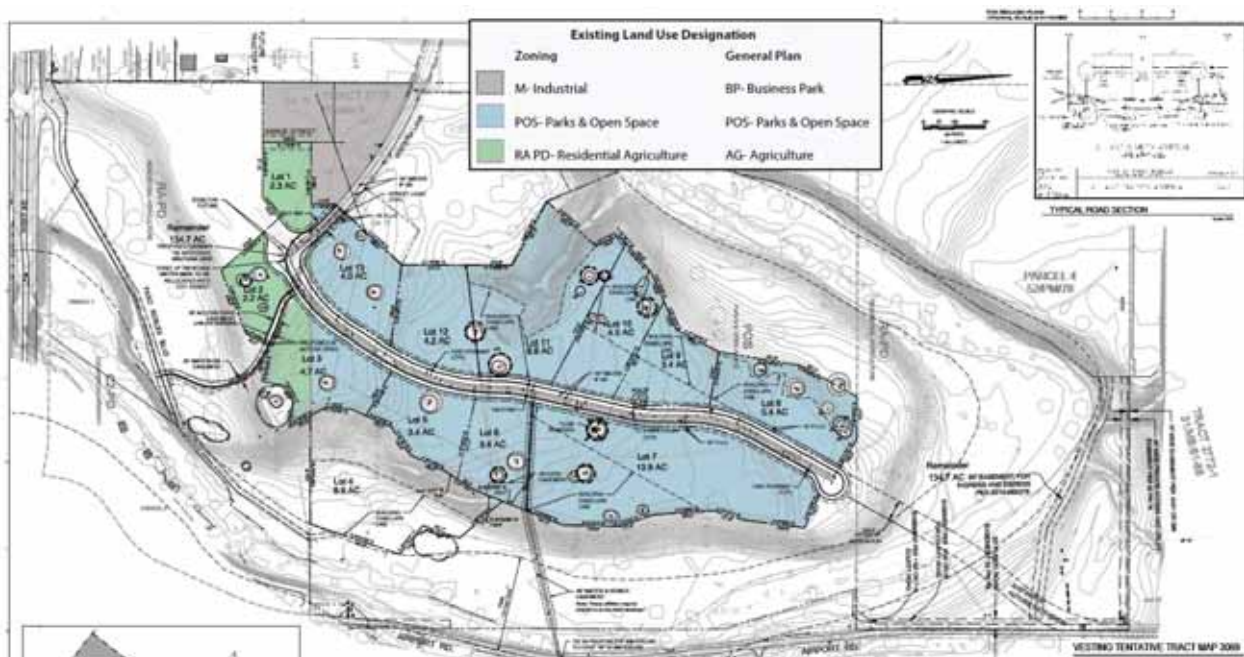
Attachment 2

July 2016

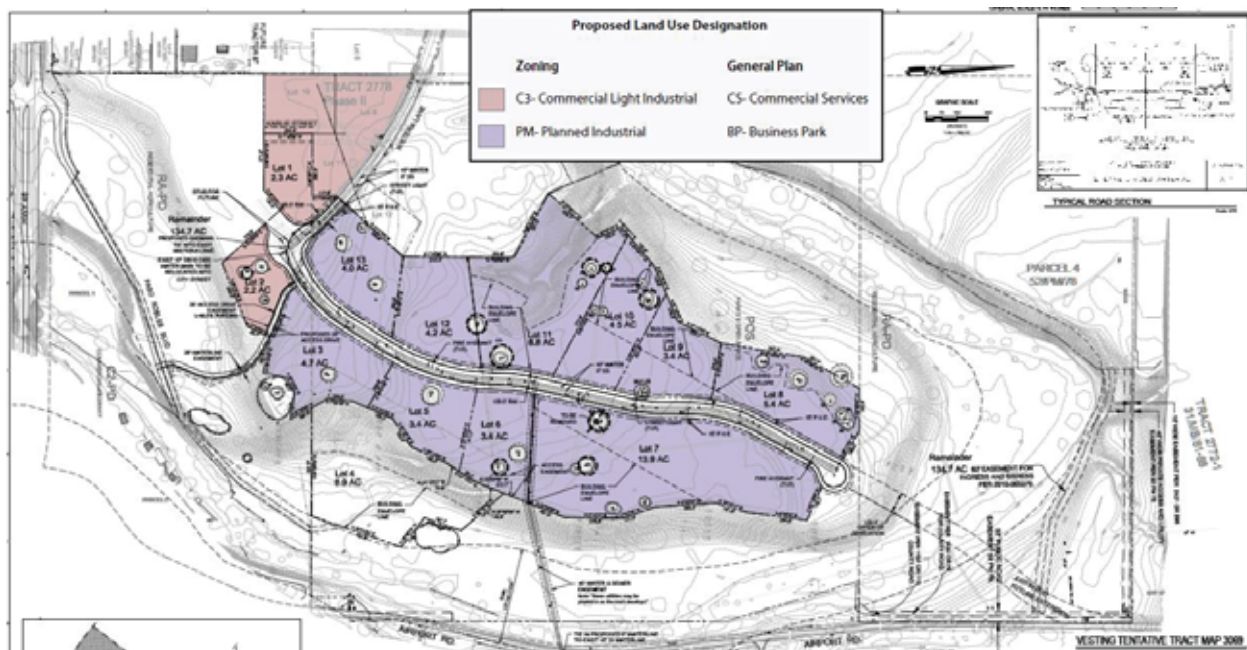
- Lots 3: Residential Ag Planned Development (RA) / Parks and Open Space (POS) to Planned Industrial (PM)
- Lots 5-12: Parks and Open Space (POS) to Planned Industrial (PM)
- Lot 13: Residential Agriculture Planned Development (RA) / Parks and Open Space (POS) to Planned Industrial (PM)
- Remainder Parcel and Lot 4 : No changes are proposed

Amending the General Plan and Zoning designations of these parcels will allow for future land uses that are consistent with the existing development pattern in the surrounding area and on Wisteria Lane. Further, the Planned Industrial and Commercial Services zoning categories will provide an economic benefit to the City and its residents as it will create the opportunity for increased commercial and employment growth within the City Limits. Additionally, the project will facilitate a future arterial road connection to Airport Road, consistent with the City's Circulation Element.

EXISTING ZONING



PROPOSED ZONING

***Airport Land Use Plan***

The property is located in close proximity to the Paso Robles Municipal Airport and within the Airport Influence Area. Safety Zones 2-4 overlie the property and a portion of the property is located within a runway extension area. Each safety zone sets forth use restrictions and density limitations which place thresholds on the type and intensity of future development and the runway extension area has a use limitation which prohibits structures, congregations of equipment or vehicles, or public venues within 250 feet of the extended runway centerline (Zone 2). Build-out scenarios consistent with the ALUP density limitation were analyzed and are provided with the application.

Based on the current safety zone density limitations, ultimate build-out of the project could provide up to +/- 440,000 sf of Planned Industrial (Industrial Park) development and +/- 183,200 sf of Commercial Services (Light Industrial) development. In order to ensure full disclosure is provided during the environmental review process, the development scenario included in the General Plan Amendment / Zoning Amendment application anticipates the maximum build-out scenario allowed under the ALUP. These assumptions were analyzed with the resource studies prepared for the project. Building limit lines have been identified on lots 7-10 to ensure structures and uses are not located within the runway setback limitations outlined in Table 5 of the ALUP.

TABLE 5: MAXIMUM ALLOWABLE NONRESIDENTIAL LAND USE DENSITIES AND MINIMUM REQUIRED OPEN SPACE

| Airport Safety Area | Maximum Land Use Density (persons/acre) | Maximum Single Acre Land Use Density (persons/acre) | Minimum Percent Open Space (% gross area) |
|---|--|--|--|
| Airport Property | n/a | n/a | n/a |
| Zone 1 - Runway Protection Zones | 0 | 0 | 100 |
| Zone 2 - Inner Approach/Departure Zones | 20 | 40 | 30 ¹ |
| Zone 3 - Turning and Sideline Zones | 60 | 120 | 25 ² |
| Zone 4 - Outer Approach/Departure Zones | 40 | 120 | 20 ² |
| Zones 5 and 6 | 150 | 450 | 10 |

1. No structures, congregations of equipment or vehicles, or public venues shall be located within 250 feet of any extended runway centerline and within 6000 feet of the corresponding runway end.
 2. When feasible, development should be planned in a manner that maintains maximum open space within 50 feet of any extended runway centerline.

ENVIRONMENTAL IMPACTS

BIOLOGICAL

The project site is currently vacant. A Biological Assessment and a Kit Fox Evaluation was conducted for the project site. The Biological Assessment includes a series of mitigation measures to ensure implementation of the project will not have an adverse impact to biological resources that may occur on the project site. A Kit Fox Evaluation was conducted on the property and concluded that 53.4 acres of Kit Fox habitat may be affected by the project. The Kit Fox Evaluation resulted in a score of 65 points which requires that Kit Fox habitat loss be mitigated at a 2:1 ratio. The owner is planning to mitigate the kit fox habitat conversion by participation in an approved in lieu fee program which will provide for the protection in perpetuity of suitable habitat within the kit fox corridor located within San Luis Obispo County.

It is anticipated that the mitigation measures and recommendations included in the report will be incorporated into the CEQA document and future conditions of approval.

TREE MITIGATION

A&T Arborists have provided recommendations to protect trees onsite both during the design phase and construction of the project site. As the land has historically been used for grazing, there are very few trees on the site that are less than 40 years old. The oak trees on the property have been rendered potentially hazardous for any development within about 50 feet from the trunk; therefore, all development will avoid the critical root zones (CRZ). The radius of this circle, in feet, is equal to the diameter, in inches, of the tree. Any changes or work done near or on the CRZ will receive project arborist's review and implementation for potential

Attachment 2

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mitigation measures before any said changes or construction proceeds. If the mitigation measures described by the arborists are followed, there will be minimal long-term significant impacts to the native trees.

The Tentative Tract Map of this project will eventually include the development of a new roadway to provide easier access to the subdivided parcels. An inventory of the oak tree's on site revealed that trees #20-22 would need to be removed due to their location on the edge of the road. The project has since be revised to adjust the roadway in order to retain the three healthy trees and instead tree 19 will be required to be removed, Tree 19 was determined to be in poor health by the project arborist. As specific future uses have not yet been designated for the project site, no other trees will be negatively impacted at this time. Please refer to the attached arborist report and map.

TRAFFIC

Wisteria Lane is an east-west, two-lane roadway in northern Paso Robles. It provides access to the Golden Hill Business Park and also serves as a private road to a small number of residences. There is no signed speed limit, but based on observations, vehicular travel speeds are upward of 30 mph. There is no transit service provided in the vicinity of the project site; the nearest being at the corner of Dallons Drive and Buena Vista Drive. The roadway width of Wisteria Lane, 48 feet wide, provides sufficient room for vehicles and cyclists to travel in the same direction parallel to each other. Sidewalks are present along Wisteria Lane.

Specific uses of the property have not yet been designated, however assumptions for potential land uses and development were anticipated based on proposed land use designation change and Airport Land Use density thresholds (refer to Land Use Matrix table included in this application). This information was utilized to evaluate the potential impacts for existing, existing plus project, and cumulative scenarios.

Based on the land use development assumptions, it is anticipated that the project could develop +/- 183,200sf of Commercial Service (Light Industrial) uses and +/- 440,000 sf of Planned Industrial (Industrial Park) uses. Traffic trips associated with these assumptions would yield a total of 4,452 daily traffic trips (614 am peak trips and 603 pm peak hour trips). The traffic study analyzed how these added trips would affect existing plus project, near term and cumulative circulation. The analysis evaluated the Wisteria Lane/Golden Hill Rd intersection, Dallons Drive/Golden Hill Rd and State Route 46E/Golden Hill Rd intersections.

The project will include the improvement of a significant portion of the connector road (Wisteria Lane / Erskine Drive) to Airport Road and provide an offer of dedication for the extension of the connector road to Airport Road. The project is also conditioned to provide a conceptual design for the bridge and future connection road to Airport Road. This will improve the City's parallel local routes as the project by itself will make a significant contribution to

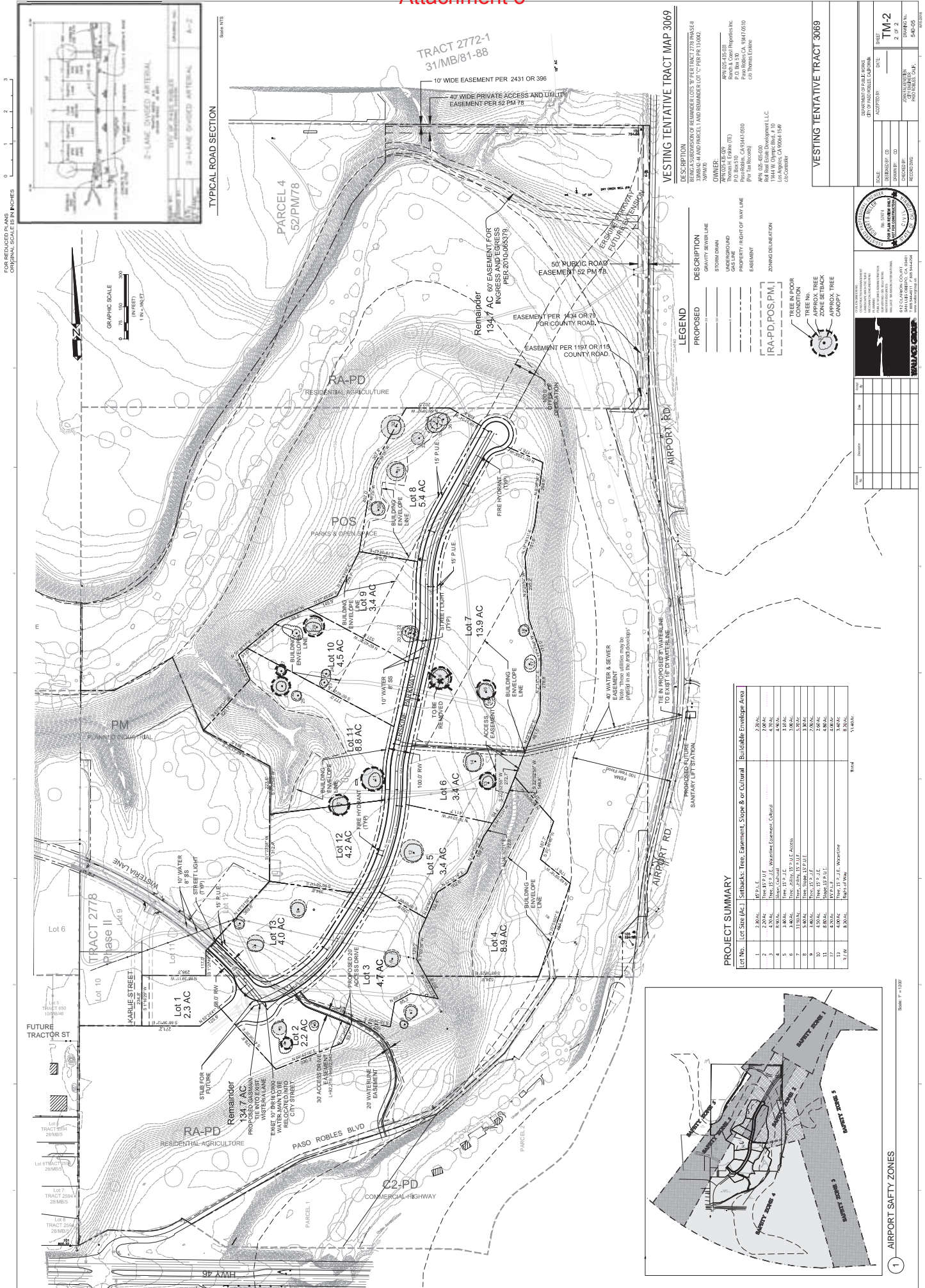
Attachment 2

July 2016

facilitating the future connection to Airport Road, which ultimately will provide access to the Airport without relying on SR 46. The implementation of transportation demand management strategies, such as programs supporting increases in non-auto travel modes, carpools, ridesharing, and park-and-ride facilities would further reduce the demand for travel along the SR 46 corridor. Traffic fees will be required for future development which will provide for other necessary circulation improvements. Other off-site improvements include the striping and signing of Wisteria Lane to establish Class II Bike Lanes.

CULTURAL STUDY

The Central Coast Information Center search results did not identify any previously documented cultural resources within the project area and within a 0.5 mile radius. The Native American Heritage Commission Program declared that the Sacred Land File did not indicate the presence of Native American cultural resources in the project area. Historic Debris were not considered on the site due to their lack of potential to qualify as historical or unique archaeological under CEQA. A low density lithic debitage and tool scattering measure was found near proposed lot 3 and lot 4. The lots and building envelopes have been designed to avoid these areas. Please refer to the copy of the Phase I Archeological Assessment provided with this application.



VESTING TENTATIVE TRACT MAP 3069

DESCRIPTION OF EASEMENTS TO BE SET IN TRACT 2772-1 31/MB/81-88 AND PARCEL 1 AND REMAINDER LOT C PER PER 13.902 7/9/16

OWNER: JAMES W. COOK, JR. Thomas H. Evans (EE) Barbara A. Cook Properties Inc. P.O. Box 150 24 91441-0100 (Per Tax Records)

APN: 025-45-030 13418 W. Oxnard Blvd., #100 Los Angeles, CA 90004-1549 (C) 2016

DATE: 10/11/16

SCALE: 1" = 100'

PROJECT NO.: 16-0001

RECORD NO.: 16-0001

DEPARTMENT OF PUBLIC WORKS CITY OF LOS ANGELES, CALIFORNIA

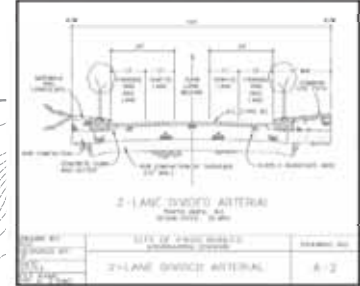
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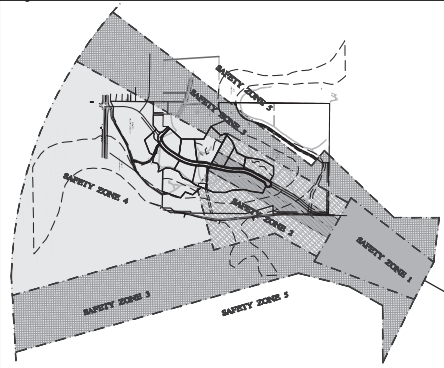
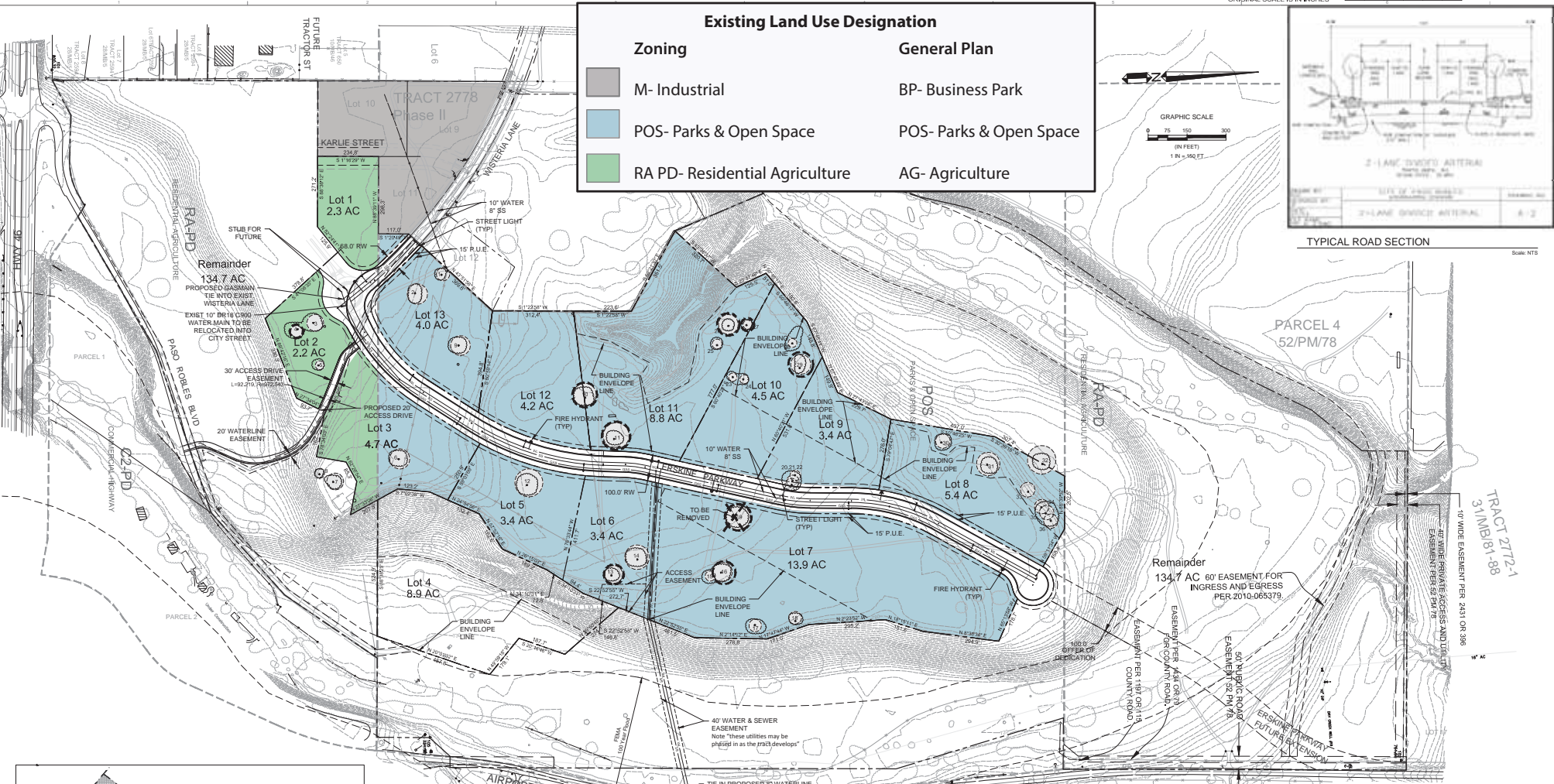
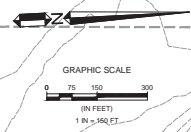
RECORD NO.: 16-0001

1 AIRPORT SAFETY ZONES



Existing Land Use Designation

| Zoning | General Plan |
|--|-------------------------|
| M- Industrial | BP- Business Park |
| POS- Parks & Open Space | POS- Parks & Open Space |
| RA PD- Residential Agriculture | AG- Agriculture |



PROJECT SUMMARY

| Lot No. | Lot Size (Ac.) | Setbacks: Tree, Easement, Slope & or Cultural | Buildable Envelope Area |
|---------|----------------|--|-------------------------|
| 1 | 2.30 Ac. | 15' P.U.E. | 2.20 Ac. |
| 2 | 2.20 Ac. | Tree, 15' P.U.E. | 2.00 Ac. |
| 3 | 4.70 Ac. | Tree, 15' P.U.E., Waterline Easement, Cultural | 4.70 Ac. |
| 4 | 8.90 Ac. | Slope, Cultural | 4.90 Ac. |
| 5 | 3.40 Ac. | Tree, 15' P.U.E. | 3.30 Ac. |
| 6 | 3.40 Ac. | Tree, Utility, 15' P.U.E. Access | 3.00 Ac. |
| 7 | 13.90 Ac. | Tree, Utility, 15' P.U.E. | 5.20 Ac. |
| 8 | 5.40 Ac. | Tree, Slope, 15' P.U.E. | 3.30 Ac. |
| 9 | 3.40 Ac. | Tree, 15' P.U.E. | 2.00 Ac. |
| 10 | 4.50 Ac. | Tree, Utility, 15' P.U.E. | 2.40 Ac. |
| 11 | 8.80 Ac. | Slope, 15' P.U.E. | 4.80 Ac. |
| 12 | 4.20 Ac. | 15' P.U.E. | 4.00 Ac. |
| 13 | 4.00 Ac. | Tree, 15' P.U.E., Waterline Right of Way | 3.40 Ac. |
| Total | | | 53.40 Ac. |

LEGEND

| PROPOSED | DESCRIPTION |
|----------|------------------------------|
| | GRAVITY SEWER LINE |
| | STORM DRAIN |
| | UNDERGROUND GAS LINE |
| | PROPERTY / RIGHT OF WAY LINE |
| | EASEMENT |
| | ZONING DELINEATION |
| | TREE IN POOR CONDITION |
| | TREE No. |
| | APPROX. TREE ZONE SETBACK |
| | APPROX. TREE CANOPY |

[RA-PD, POS, PM]

VESTING TENTATIVE TRACT MAP 3069

DESCRIPTION
BEING A SUBDIVISION OF REMAINDER LOTS "B" PER TRACT 2778 PHASE II 33MB/42-44 AND PARCEL 1 AND REMAINDER LOT "C" PER TRACT 13-042-76/PM/70

OWNER:
APN 025-435-030
Thomas H. Enshine (TE)
Ranch & Coast Properties Inc.
P.O. Box 510
Paso Robles, CA 93447-0510
(Per Tax Records)

APN 025-435-030
Roll Real Estate Development L.L.C.
11444 W. Olympic Blvd., # 10
Los Angeles, CA 90064-1549
c/o Controller

VESTING TENTATIVE TRACT 3069

| SCALE | ACCEPTED BY | DATE | SHEET |
|-----------------|-------------|------|--------|
| AS SHOWN | [Signature] | | TM-2 |
| DESIGNED BY: CD | | | 2 of 2 |
| DRAWN BY: CD | | | |
| RECORD DWG | | | |

| Project No. | Description | Date | Sheet No. |
|-------------|-------------|------|-----------|
| | | | |

WALLACE GROUP
112 CLAYBORN CIRCLE
SAN LUIS OBISPO, CA 93401
TEL: 844-1111 FAX: 844-2424
WWW.WALLACEGROUP.COM

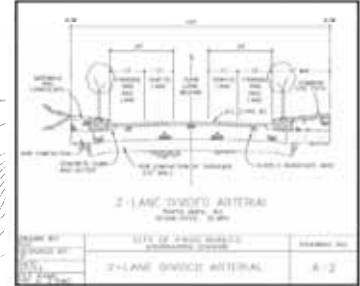
SEAL
No. 57474
DATE: 05/11/2020
FOR PUBLIC CONSTRUCTION

DEPARTMENT OF PUBLIC WORKS
CITY OF PASO ROBLES, CALIFORNIA

JOHN FALCONE
CITY ENGINEER
PASO ROBLES, CALIF.

540-05

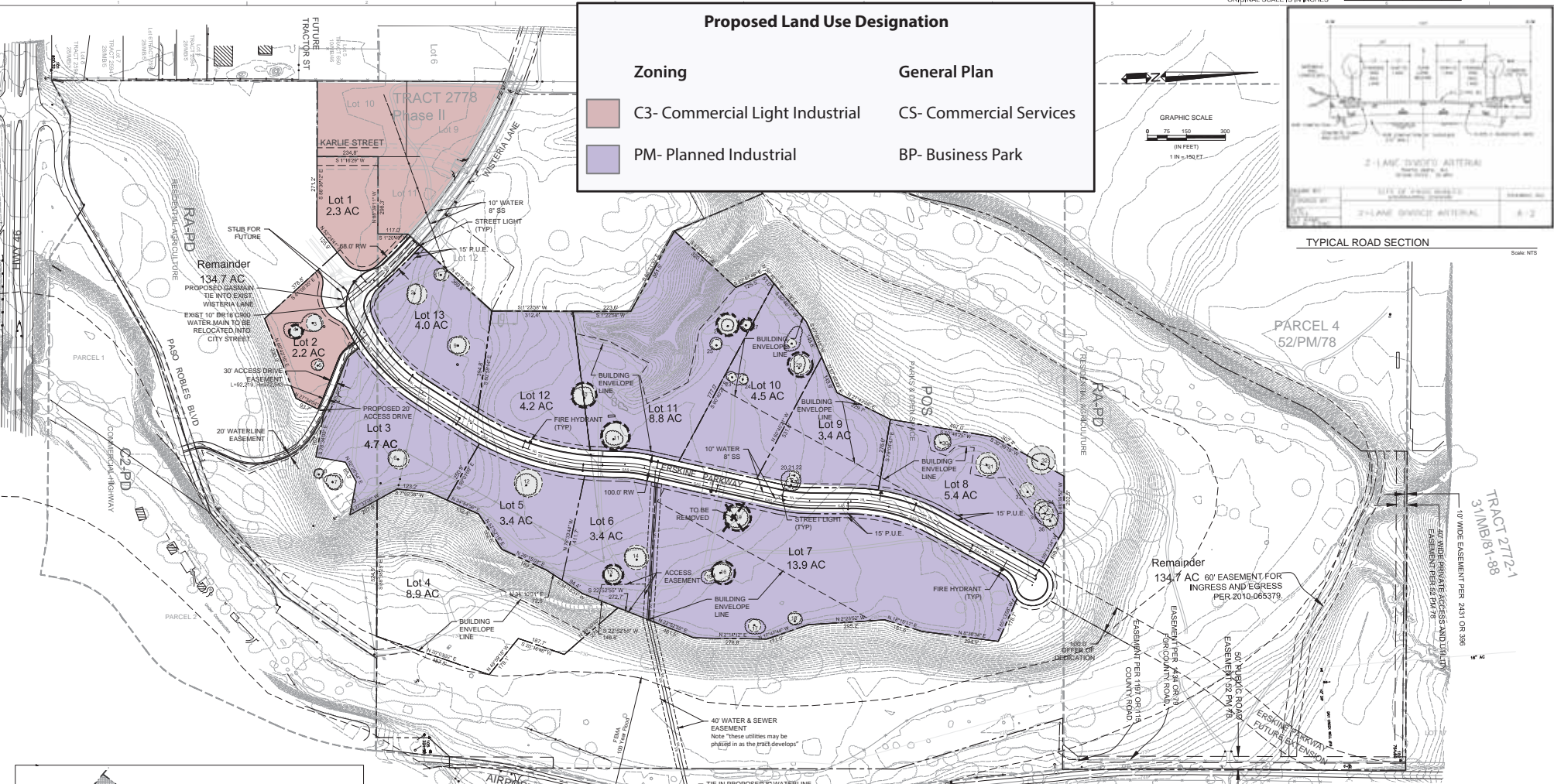
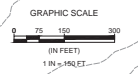
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



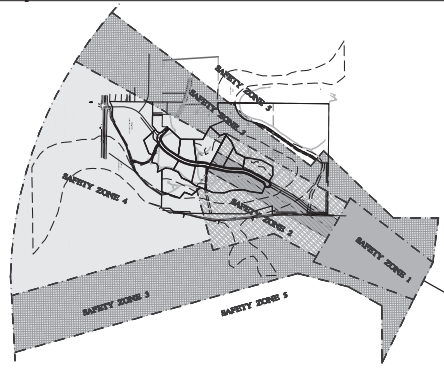
Scale: NTS

Proposed Land Use Designation

| Zoning | General Plan |
|---|-------------------------|
| C3- Commercial Light Industrial | CS- Commercial Services |
| PM- Planned Industrial | BP- Business Park |



Attachment 5



Scale: 1" = 1200'

PROJECT SUMMARY

| Lot No. | Lot Size (Ac.) | Setbacks: Tree, Easement, Slope & or Cultural | Buildable Envelope Area |
|---------|----------------|--|-------------------------|
| 1 | 2.30 Ac. | 15' P.U.E. | 2.20 Ac. |
| 2 | 2.20 Ac. | Tree, 15' P.U.E. | 2.00 Ac. |
| 3 | 4.70 Ac. | Tree, 15' P.U.E., Waterline Easement, Cultural | 4.30 Ac. |
| 4 | 8.90 Ac. | Slope, Cultural | 4.90 Ac. |
| 5 | 3.40 Ac. | Tree, 15' P.U.E. | 3.30 Ac. |
| 6 | 3.40 Ac. | Tree, Utility, 15' P.U.E. Access | 3.00 Ac. |
| 7 | 13.90 Ac. | Tree, Utility, 15' P.U.E. | 5.20 Ac. |
| 8 | 5.40 Ac. | Tree, Slope, 15' P.U.E. | 3.30 Ac. |
| 9 | 3.40 Ac. | Tree, 15' P.U.E. | 2.00 Ac. |
| 10 | 4.50 Ac. | Tree, Utility, 15' P.U.E. | 2.40 Ac. |
| 11 | 8.80 Ac. | Slope, 15' P.U.E. | 4.80 Ac. |
| 12 | 4.20 Ac. | 15' P.U.E. | 4.00 Ac. |
| 13 | 4.00 Ac. | Tree, 15' P.U.E., Waterline | 3.40 Ac. |
| N/W | 8.20 Ac. | Right-of-Way | 8.20 Ac. |
| Total | | | 53.40 Ac. |

LEGEND

| PROPOSED | DESCRIPTION |
|----------|------------------------------|
| --- | GRAVITY SEWER LINE |
| --- | STORM DRAIN |
| --- | UNDERGROUND GAS LINE |
| --- | PROPERTY / RIGHT OF WAY LINE |
| --- | EASEMENT |
| --- | ZONING DELINEATION |

[RA-PD, POS, PM]

- TREE IN POOR CONDITION
- TREE No.
- APPROX. TREE ZONE SETBACK
- APPROX. TREE CANOPY

VESTING TENTATIVE TRACT MAP 3069

DESCRIPTION
BEING A SUBDIVISION OF REMAINDER LOTS "B" PER TRACT 2778 PHASE II 33MB/42-44 AND PARCEL 1 AND REMAINDER LOT "C" PER PR 13-0042-76PM/70

OWNER
APN 025-435-039
Thomas H. Enshle (TE)
P.O. Box 510
Pasadena, CA 91747-0510
(Per Tax Records)

APN 025-435-030
Roll Road Estate Development L.L.C.
11444 W. Olympic Blvd., # 10
Los Angeles, CA 90064-1549
c/o Controller

VESTING TENTATIVE TRACT 3069

| | | |
|--|--|--------------------------------|
| DEPARTMENT OF PUBLIC WORKS CITY OF PASADENA, CALIFORNIA | ACCEPTED BY: _____ DATE: _____ | SHEET TM-2 2 of 2 |
| SEAL: _____ | DESIGNED BY: CD | DRAWING NO.: 540-05 |
| CHECKED BY: _____ | DRAWN BY: CD | DATE: _____ |
| RECORD DWG: _____ | JOHN FALCETTI CITY ENGINEER PASADENA, CALIF. | DATE: _____ |

612 CLARKIN CIRCLE
SANTA LUIS OBISPO, CA 95051
TEL 805 544-0111 FAX 805 544-0274
WWW.WALLACEGROUP.COM

WALLACE GROUP

CITY ENGINEER
CITY OF PASADENA, CALIFORNIA
NO. 57474
DATE: 01/11/11
FOR CONSTRUCTION

Attachment 6

DRAFT RESOLUTION A

A RESOLUTION OF THE PLANNING COMMISSION
OF THE CITY OF EL PASO DE ROBLES
RECOMMENDING APPROVAL TO THE CITY COUNCIL
OF THE CITY OF EL PASO DE ROBLES
ADOPTING A MITIGATED NEGATIVE DECLARATION FOR
GENERAL PLAN AMENDMENT 14-001, REZONE 14-001,
VESTING TENTATIVE TRACT 3069 & OAK TREE REMOVAL 14-005
APPLICANT – ERSKINE / RANCH AND COAST PROPERTIES, INC.
APN: 025-435-031, 030 and 029

WHEREAS, Kirk Consulting, on behalf of Tom Erskine and Ranch and Coast Properties, Inc., has filed an application requesting consideration of the following land use changes and entitlements in connection with the development of a project known the Erskine-Justin General Plan Amendment (the “Project”):

- **General Plan Amendment 14-001:** to change the existing land use designations as follows:
 - **Lots 9-11 (Tract 2778):** Business Park to Commercial Services
 - **Lot 1:** Ag/Parks and Open Space to Commercial Services
 - **Lots 2:** Ag/Parks and Open Space to Commercial Services
 - **Lot 3:** Ag/Parks and Open Space to Business Park
 - **Lots 5-12:** Parks & Open Space to Business Park
 - **Lot 13:** Ag/Parks & Open Space to Business Park
 - **Remainder Parcel and Lot 4:** No changes proposed

- **Rezone 14-001:** Rezone: to change the existing zoning designations as follows (See Rezone Exhibit, Attachment 4):
 - **Lots 9-11 (Tract 2778):** PM (Planned Industrial) to C3-PD (Commercial/Light Industrial - Planned Development Overlay)
 - **Lots 1-2:** RA-PD (Residential Ag, Planned Development) to C3-PD (Commercial/Light Industrial-Planned Development Overlay)
 - **Lot 3:** RA-PD (Residential Ag, Planned Development) and POS (Parks & Open Space) to C3-PD (Commercial/Light Industrial – Planned Development Overlay)
 - **Lots 5-12:** POS (Parks & Open Space) to PM-PD (Planned Industrial, Planned Development Overlay)
 - **Lot 13:** RA-PD (Residential Ag, Planned Development) and POS (Parks & Open Space) to PM-PD (Planned Industrial, Planned Development Overlay);
 - **Remainder Parcel and Lot 4:** No changes proposed

- **Vesting Tentative Tract Map 3069:**

- A request to subdivide three (3) existing parcels, APNs 025-435-029, 030, and 031, totaling 212 acres into 13 lots that would total 77.3 acres and one 134.7 acre remainder lot.
- The map includes a 2-lane arterial road which will be improved through the project site terminating at a cul-de-sac at the eastern edge of Lot 7 and 8. An offer of dedication is being provided as part of the project extending from the cul-de-sac to the south eastern edge of the property. The offer of dedication is intended to facilitate the future connection to Airport Road consistent with the General Plan Circulation Element. The subdivision recognizes the City's future plans and has been designed to accommodate the future road.

WHEREAS, pursuant to the Statutes and Guidelines of the California Environmental Quality Act (CEQA), Public Resources Code, Section 21000, et seq., and the City's Procedures for Implementing CEQA, an Initial Study and a Draft Mitigated Negative Declaration ("MND") was prepared and circulated for a 30-day public review period beginning on June 24, 2016 and extended to July 24, 2016. The Draft MND/Initial Study dated June 24, 2016 is on file at the Paso Robles Community Development Department and available on line at <http://www.prcity.com/government/departments/commdev/>; and

WHEREAS, mitigation measures have been incorporated into the MND and will be imposed on the project through the City's adoption of a Mitigation Monitoring and Reporting Program (MMRP) in compliance with CEQA Guideline 15074(d). These mitigation measures are imposed on the project to address potential environmental effects from: air quality; biological resources; cultural resources, hydrology, and transportation. With the implementation of this mitigation, all potential environmental effects will be reduced to a less than significant level; and

WHEREAS, mitigation measures set forth in the MMRP are specific and enforceable. The MMRP adequately describes implementation procedures, monitoring responsibility, reporting actions, compliance schedule, and verification of compliance in order to ensure that the Project complies with the adopted mitigation measures; and

WHEREAS, the mitigation measures contained in the MMRP will also be imposed as enforceable conditions of approval; and

WHEREAS, the applicant has executed a Mitigation Agreement whereby the applicant has agreed to incorporate all of the mitigation measures into the project. A copy of the executed Mitigation Agreement is on file in the Community Development Department; and

WHEREAS, public notice of the proposed Draft MND was posted as required by Section 21092 of the Public Resources Code; and

WHEREAS, public hearings were conducted by the Planning Commission on July 12, 2016, and by the

City Council on August 2, 2016, to consider the Initial Study and the draft MND prepared for the proposed Project, and to accept public testimony on the proposed entitlements and environmental determination;

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Paso Robles, as follows:

Section 1. All of the recitals above are true and correct and incorporated herein.

Section 2. Based on the information and analysis contained in the Mitigated Negative Declaration prepared for this project, the comments received during the public review period, and testimony received at the public hearing, the City Council finds that there is no substantial evidence supporting a fair argument that there would be a significant impact on the environment with mitigation measures imposed on the Project. These findings are based on an independent review of the Initial Study, the Mitigated Negative Declaration, and all comments received regarding the Mitigated Negative Declaration, and based on the whole record. The City Council further finds that the Mitigated Negative Declaration was prepared in compliance with CEQA and the CEQA Guidelines, that there is no substantial evidence that the Project will have a significant effect on the environment with the incorporation of mitigation measures provided in the MMRP, and the Mitigated Negative Declaration reflects the independent judgment and analysis of the City Council.

Section 3. The City Council, based on its independent judgment and analysis, hereby adopts the Mitigated Negative Declaration for the Erskine Industrial Park General Plan Amendment Project, attached hereto as Exhibit A, including the comments received and responses thereto, attached hereto as Exhibit B, and the Mitigation Monitoring and Reporting Program, attached hereto as Exhibit C, and imposes each mitigation measure as a condition of approval of the Project, in accordance with the Statutes and Guidelines of the California Environmental Quality Act (CEQA) and the City's Procedures for Implementing CEQA. Exhibits A, B, and C are hereby incorporated into this resolution.

PASSED AND ADOPTED by the Planning Commission of the City of Paso Robles this 12th day of July 2016 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Bob Rollins, Chairman

ATTEST:

Warren Frace, Planning Commission Secretary

Exhibit A – Mitigated Negative Declaration

Exhibit B. – Mitigation Monitoring and Reporting Table

Exhibit A - Mitigated Negative Declaration for the Erskine Industrial Park General Plan
Amendment project

Refer to Attachment 10 at the end of the staff report.

Exhibit B - Mitigation Monitoring and Reporting Program

Refer to Attachment 1 of Attachment 10, at the end of this Staff Report

Attachment 7

DRAFT RESOLUTION B

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EL PASO DE ROBLES RECOMMENDING APPROVAL TO THE CITY COUNCIL OF GENERAL PLAN AMENDMENT 15-003 RELATED TO ALDER CREEK APARTMENTS EXPANSION PROJECT AND ERSKINE INDUSTRIAL PARK PROJECT

WHEREAS, the following project applications requested amendments to the Land Use Element and constituted parts of General Plan Amendment 15-003:

Part A: Alder Creek Apartments Expansion

An amendment to the Land Use Diagram Map to re-designate approximately 1.50 acres of land from Residential Multi-Family Low Density, (RMF-8) to Residential Multi-Family High Density (RMF-20), and re-designate approximately 0.9 acres of land from Residential Multi-Family Low Density, (RMF-8) to Parks and Open Space (POS), as shown in Exhibit A, General Plan - Land Use Map Amendment. The applicant is New Heritage, LP/Joe Collins.

Part B: Erskine Industrial Park

An amendment to the Land Use Diagram Map to re-designate approximately 10.45 acres of land from Business Park, (BP) to Commercial Services (CS); approximately 4.5 acres of land from Residential-Agriculture/Planned Development; (RA/PD) to Commercial Services (CS); approximately 1.7 acres of land from Residential-Agriculture/Planned Development, (RA/PD) to Business Park (BP); and approximately 55.70 acres of land from Parks and Open Space (POS) to Business Park (BP), as shown in Exhibit B, General Plan - Land Use Map Amendment. The applicant is Tom Erskine/Ranch and Coast Properties, Inc.

WHEREAS, pursuant to the California Environmental Quality Act (CEQA), Mitigated Negative Declarations were prepared for the projects proposed in connection with Part A and Part B of General Plan Amendment 15-003, and each Mitigated Negative Declaration was approved by resolution; and

WHEREAS, at its meeting of July 12, 2016, the Planning Commission conducted a public hearing on Part A and on Part B of the proposed General Plan Amendment, and considered the following actions with respect to each Part:

- a. Considered the facts and analysis, as presented in the staff reports prepared for this General Plan Amendment;
- b. Conducted public hearing to obtain public testimony on the parts of this General Plan Amendment;

- c. Considered public testimony from all parties;
- d. Made a recommendation to the City Council to approve the proposed General Plan Amendment;
- e. Based on its independent judgment, found that there was no substantial evidence that either Part A or Part B of the General Plan Amendment would have significant adverse effects on the environment and approved both Mitigate Negative Declarations for this General Plan Amendment in accordance with CEQA.

NOW THEREFORE, BE IT RESOLVED by the Planning Commission of the City of El Paso de Robles, California, to amend the General Plan Land Use Element Map diagram on page LU-6C in the manner shown on the attached Exhibit "A" (Part A), and Exhibit "B" (Part B).

PASSED AND ADOPTED by the Planning Commission of the City of El Paso de Robles this 12th day of July 2016 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Bob Rollins, Chairman

ATTEST:

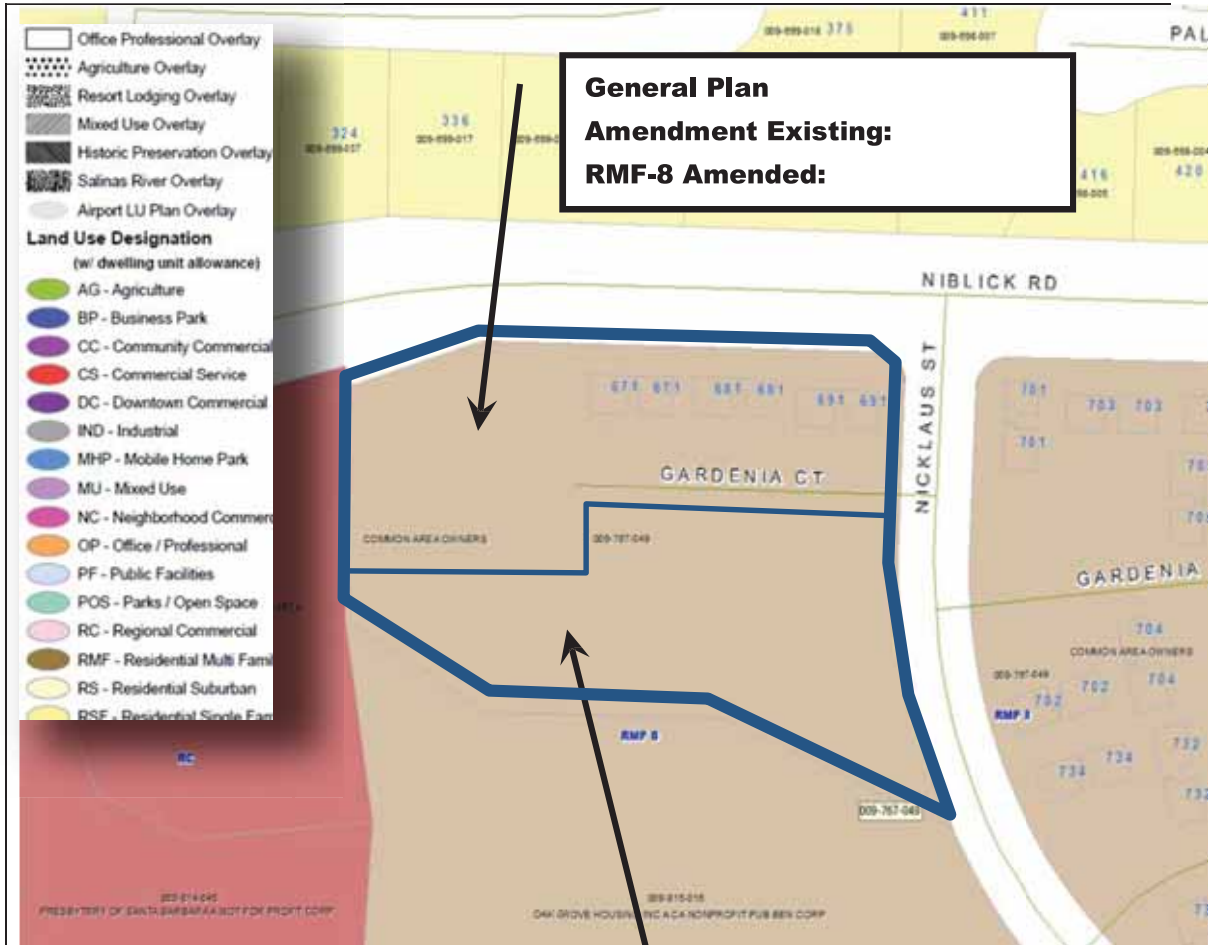
Warren Frace, Planning Commission Secretary

Exhibit A – Part A, General Plan Land Use Diagram Amendment

Exhibit B – PartB, General Plan Land Use Diagram Amendment

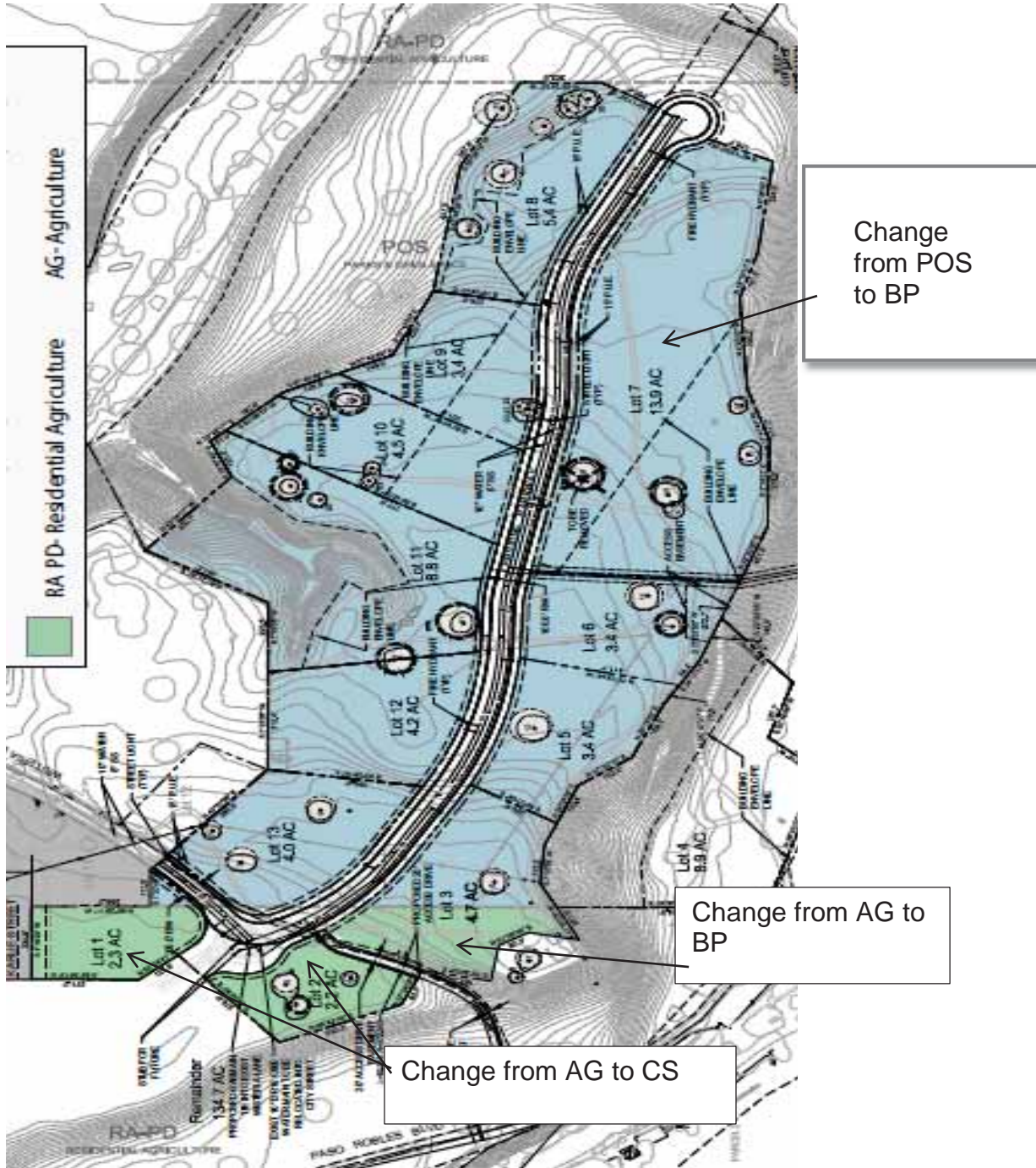
Attachment 7 - Exhibit A

Exhibit A - General Plan - Land Use Map Amendment



Attachment 7 - Exhibit B

Exhibit B - General Plan - Land Use Map Amendment



Attachment 8

Draft Resolution - C

**A RESOLUTION OF THE PLANNING COMMISSION
OF THE CITY OF EL PASO DE ROBLES
RECOMMENDING APPROVAL TO THE CITY COUNCIL
OF THE CITY OF EL PASO DE ROBLES
APPROVE REZONE 14-001
APPLICANT – ERSKINE / RANCH & COAST PROPERTIES, INC.
APN: 025-435-031, 030 and 029**

WHEREAS, Kirk Consulting, on behalf of Tom Erskine and Ranch & Coast Properties, Inc., has filed an application requesting consideration of a zoning map amendment in connection with the development of a project known as the Erskine Industrial Park General Plan Amendment (the “Project”):

Rezone: to change the existing zoning designations as follows (See Rezone Exhibit, Attachment A):

- **Lots 9-11 (Tract 2778):** PM (Planned Industrial) to C3-PD (Commercial/Light Industrial - Planned Development Overlay)
- **Lots 1-2:** RA-PD (Residential Ag, Planned Development) to C3-PD (Commercial/Light Industrial-Planned Development Overlay)
- **Lot 3:** RA-PD (Residential Ag, Planned Development) and POS (Parks & Open Space) to C3-PD (Commercial/Light Industrial – Planned Development Overlay)
- **Lots 5-12:** POS (Parks & Open Space) to PM-PD (Planned Industrial, Planned Development Overlay)
- **Lot 13:** RA-PD (Residential Ag, Planned Development) and POS (Parks & Open Space) to PM-PD (Planned Industrial, Planned Development Overlay);
- **Remainder Parcel and Lot 4:** No changes proposed

WHEREAS, Kirk Consulting, on behalf of Tom Erskine and Ranch and Coast Properties, Inc., (“Applicant”), in connection with the proposed development of a project known as Erskine Industrial Park General Plan Amendment (the “Project”), has filed a request for consideration of Rezone 15-003 (formerly 14-001), to rezone property located at the eastern end of Wisteria Lane, north of State Route 46 East, APN: 025-435-031, 030 and 029; and

WHEREAS, the rezone is necessary to provide zoning map consistency with a concurrent request for a General Plan Land Use Element Diagram Amendment (GPA 15-003); and

WHEREAS, the Planning Commission has reviewed and recommended the City Council approve the Mitigated Negative Declaration prepared for the Project; and

WHEREAS, the Planning Commission has reviewed and recommended the City Council approve GPA 15-003 (formerly 14-001);

NOW, THEREFORE BE IT RESOLVED by the Planning Commission of the City of Paso Robles, as follows:

Section 1. All of the above recitals are true and correct and incorporated herein by reference.

Section 2. Based on the facts and analysis presented to it, including all written and oral testimony, the Planning Commission hereby makes following findings regarding Rezone 14-001:

- a. The rezone is necessary to provide zoning map consistency with a concurrent request for a General Plan Land Use Element Diagram Amendment (GPA 15-003).
- b. Rezone 14-001 would provide for orderly development within the City.

Section 3. Based on all of the foregoing, the Planning Commission of the City of El Paso de Robles recommends that the City Council of the City of El Paso de Robles approve Rezone 14-001 and adopt an ordinance to amend Section 21.12.020 of the Municipal Code (Zoning Map) as shown on the Exhibit A., attached hereto and incorporated herein by reference.

PASSED AND ADOPTED by the Planning Commission of the City of Paso Robles this 12th day of July 2016 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

Bob Rollins, Chairman

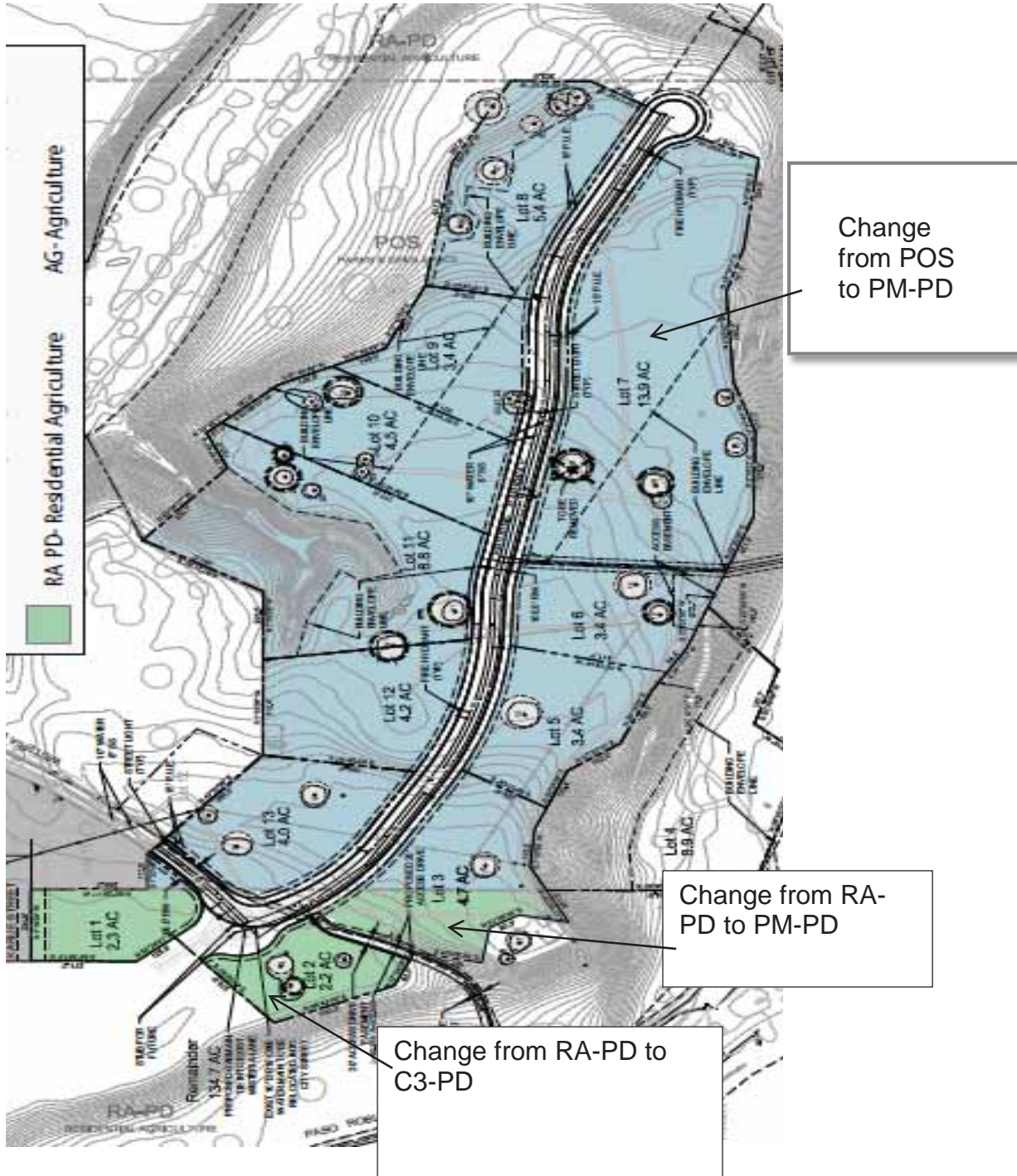
ATTEST:

Warren Frace, Planning Commission Secretary

Exhibit A – Zoning Map Amendment

Attachment 8 - Exhibit A

Exhibit A – Zoning Map Amendment



Attachment 9

Draft Resolution - D

**A RESOLUTION OF THE PLANNING COMMISSION
OF THE CITY OF EL PASO DE ROBLES
RECOMMENDING THAT THE CITY COUNCIL
OF THE CITY OF EL PASO DE ROBLES
APPROVE VESTING TENTATIVE TRACT 3069
APPLICANT – ERSKINE / RANCH & COAST PROPERTIES, INC.
APN: 025-435-031, 030 and 029**

WHEREAS, Kirk Consulting, on behalf of Tom Erskine and Ranch & Coast Properties, Inc., has filed an application requesting consideration of Vesting Tentative Tract Map 3069, in connection with the development of a project known as the Erskine Industrial Park General Plan Amendment (the “Project”); and

WHEREAS, the Project is located at the eastern end of Wisteria Lane, north of State Route 46 East, APN: 025-435-031, 030 and 029; and

WHEREAS, Vesting Tentative Tract Map 3069 consists of a request to subdivide three (3) existing parcels, APNs 025-435-029, 030, and 031, totaling 212 acres into 13 lots that would total 77.3 acres and one 134.7 acre remainder lot; and

WHEREAS, Vesting Tentative Tract Map 3069 is part of the Erskine General Plan Amendment Project, that includes GPA 15-003 (formerly 14-001), and Rezone 14-001 requesting the change in zoning and land use designations as follows:

General Plan Amendment 15-003: to change the existing land use designations as follows:

- **Lots 9-11 (Tract 2778):** Business Park to Commercial Services
- **Lot 1:** Ag/Parks and Open Space to Commercial Services
- **Lots 2:** Ag/Parks and Open Space to Commercial Services
- **Lot 3:** Ag/Parks and Open Space to Business Park
- **Lots 5-12:** Parks & Open Space to Business Park
- **Lot 13:** Ag/Parks & Open Space to Business Park
- **Remainder Parcel and Lot 4:** No changes proposed

Rezone 14-001: to change the existing zoning designations as follows:

- **Lots 9-11 (Tract 2778):** PM (Planned Industrial) to C3-PD (Commercial/Light Industrial - Planned Development Overlay)
- **Lots 1-2:** RA-PD (Residential Ag, Planned Development) to C3-PD (Commercial/Light Industrial-Planned Development Overlay)
- **Lot 3:** RA-PD (Residential Ag, Planned Development) and POS (Parks & Open Space) to C3-PD (Commercial/Light Industrial – Planned Development Overlay)

- **Lots 5-12:** POS (Parks & Open Space) to PM-PD (Planned Industrial, Planned Development Overlay)
- **Lot 13:** RA-PD (Residential Ag, Planned Development) and POS (Parks & Open Space) to PM-PD (Planned Industrial, Planned Development Overlay);
- **Remainder Parcel and Lot 4:** No changes proposed

WHEREAS, Pursuant to the Statutes and Guidelines of the California Environmental Quality Act (CEQA) and the City's Procedures for Implementing CEQA, an Initial Study and Negative Declaration (ND) was prepared and circulated for public review and comment; and

WHEREAS, the circulation period for the Negative Declaration is June 24, 2016 to July 24, 2016, the information contained in the Initial Study prepared for this project, concludes that there is no substantial evidence that this project would have significant adverse effects on the environment and recommends that the City Council approve the Negative Declaration; and

WHEREAS, at a meeting held on July 12, 2016, the Planning Commission took the following actions regarding this ordinance:

- a. Considered the facts and analysis, as presented in the staff report prepared for this project;
- b. Held a public hearing to obtain public testimony on the proposed ordinance;
- c. Based on the information contained in the Initial Study prepared for this project, found that there was no substantial evidence that this project would have significant adverse effects on the environment and recommended that the City Council approve the Negative Declaration;
- d. Recommended that the City Council approve Vesting Tentative Tract Map 3069 and the new street name as 'Erskine Parkway'; and

NOW, THEREFORE, the Planning Commission of the City of El Paso de Robles recommends as follows:

SECTION 1: Findings Map: based upon the facts and analysis presented in the staff report, public testimony received and subject to the conditions listed below, the Planning Commission makes the following findings as required by Government Code Sections 66474 and 65457:

- a. Vesting Tentative Tract Map 3069 will be consistent, in part, with the General Plan Land Use Element, and will specifically support the intent of LU-1, by providing opportunities for new commercial and industrial development.
- b. Vesting Tentative Tract Map 3069 will allow for the continuation of business park type uses in close proximity to the Airport.
- c. Vesting Tentative Tract Map 3069 will provide for orderly growth and development, including extension of streets and utilities necessary to serve the project.

- d. Vesting Tentative Tract Map 3069 will be consistent with the General Plan Circulation Element, by providing most of the right-of-way for the Connection Road between the “interchange” at Union Road - Highway 46E and the northerly extension of a connecting road to Airport Road (CF-3 Needs List Project).

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission of the City of El Paso de Robles, does hereby recommend that the City Council approve Vesting Tentative Tract Map 3069, subject to the following:

- Exhibit A Project Conditions
- Exhibit B Standard Conditions of Approval
- Exhibit C Pedestrian Trail Easement Exhibit
- Exhibit D Vesting Tentative Tract Map 3069

PASSED AND ADOPTED THIS 12th day of July, 2016 by the following Roll Call Vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

BOB ROLLINS, CHAIRMAN

ATTEST:

WARREN FRACE, SECRETARY OF THE PLANNING COMMISSION

Attachment 9 - Exhibit A

Exhibit A Conditions of Approval / Mitigation Measures (Erskine Industrial Park – General Plan Amendment /Tract 3069)

Planning Division Conditions:

1. Vesting Tentative Tract Map 3069 shall be constructed in substantial conformance with the Conditions of Approval established by this Resolution and it shall be constructed in substantial conformance with the following Exhibits:

| EXHIBIT | DESCRIPTION |
|---------|---|
| B | Standard Conditions of Approval |
| C | Pedestrian Trail Easement Exhibit |
| D | Vesting Tentative Tract Map 3069 |
| E | Mitigation Monitoring and Reporting Table |

2. In accordance with Action Item 2 of Policy C-1A of the Conservation Element of the General Plan, concurrent with recordation of the Phase 1 final map, a non-exclusive easement shall be provided to the City of Paso Robles over the area identified as the 100-year flood plain of Huer Huero Creek. The purpose of the easement is to allow groundwater recharge within the riverbed.
3. In accordance with Action Item 3 of Policy PR-1B of the Parks and Recreation Element and Action Item 2, concurrent with recordation of the Phase 1 final map, a 40-ft wide public trail easement shall be provided to the City of Paso Robles as identified in Exhibit C. The purpose of the easement is to allow a future public trails for bicyclists, and pedestrians between City property on Huer Huero Creek and Airport Road.
4. Future development of Parcels 1-13 of Tract 3069 shall submit for a development plan (PD) and Conditional Use Permit (CUP) as necessary, prior to the submittal of a building permit for each lot.

5. With the approval of GPA 14-001, RZ 14-001 and Vesting Tentative Tract 3069, the following environmental factors have been complied with, subject to compliance with the established mitigation measures as outlined in the Mitigation Monitoring and Reporting Table, Exhibit E:
 - Biological Resources;
 - Transportation/Traffic;
 - Cultural Resources;

With the development of each parcel within Tract 3069, any additional environmental factors will need to be addressed through the CEQA process.

6. All landscaping located behind the street curb and gutter, shall be installed and maintained by the property owner for their corresponding street frontage. Specific landscape plans will provided at the time of the development plan for each parcel.

Airport:

7. Any future development/use of Parcels 1-13 of Tract 3069 shall comply with the provisions outlined in the Airport Land Use Plan, including but not limited to Table 6 (Paso Robles Municipal Airport Land Use Compatibility Matrix) including the Notes to Table 6 that outline the limitations people per acre densities.
8. Concurrent with the recordation of the Phase I final map, the area within Zone 2 (Inner Approach/Departure Zones) that is 250 from the runway center line, within 6000-feet of the corresponding runway, it shall be indicated that no structures, congregations of equipment or vehicles, or public venues shall be located within this area, as shown on Exhibit E. A constructive notice shall be recorded over the parcels that are located within the Zone 2 area that notices future property owners that certain areas of their property have these restrictions.
9. A constructive notice shall be recorded over the parcels that are located within Zone 4 that notices future property owners that certain restrictions may apply, as outlined in the Airport Land Use Plan.
10. Concurrent with the recordation of the Phase I final map, an Avigation Easement shall be recorded over the area within Tract 3069.
11. Non-residential density for the Project Site shall be limited to 40 persons per acre in Safety Zone 4 and 60 persons per acre in Safety Zone 3, and 20 persons per acre in Safety Zone 2 as required by the ALUP. The maximum number of people on a single acre at any time shall not exceed 120 people.

12. All owners, potential purchasers, occupants (whether as owners or renters), and potential occupants (whether as owners or renters) shall receive full and accurate disclosure concerning the noise, safety, or overflight impacts associated with airport operations prior to entering any contractual obligation to purchase, lease, rent, or otherwise occupy any property or properties within the Airport Influence Area and Avigation easements shall be recorded for all properties included in the Project.
13. All moderately noise sensitive land uses on the Project Site shall include noise mitigation as required by the ALUP.
14. All extremely noise sensitive land uses shall be prohibited on the Project Site.
15. No development on the Project Site, including any structure, landscaping, glare, apparatus, or other feature, whether temporary or permanent in nature shall constitute an obstruction to air navigation or a hazard to air navigation.
16. Future development on the Project Site shall meet the minimum open space requirements of 30% in Safety Zone 2, 25% in Safety Zone 3, and 20% in Safety Zone, and shall not surpass the requirements set by the ALUP as discussed in the report.
17. Concurrent with the recordation of the Phase I final map Avigation easements shall be recorded for all properties created by Tract 3069. If no subdivision takes place, any future development shall be required to obtain and record the appropriate avigation easements.

Engineering:

18. With development of Tract 3069, a 14-inch recycled water main shall be extended in Wisteria Lane and the Connection Road. The water main easement to Paso Robles Boulevard may be widened up to 30 feet to accommodate a future recycled water main. The developer will be eligible for reimbursement for over-sizing the recycled water main over 8-inch.
19. With development of Tract 3069, a 10-inch water main shall be extended north in the Connection Road right-of-way to connect to the 16-inch water main in Airport Road.
20. With development of Tract 3069, a public sanitary sewer lift station shall be constructed by the City at a location to be determined. If the lift station is sited within the project limits, a minimum of 2,500 square feet of right of way shall be dedicated.

Emergency Services

21. With the development of Phase I of Tract 3069, an emergency access easement shall be dedicated and an unrestricted all-weather temporary emergency access road connection to Combine Street from the south end of the Connection Road shall be constructed. The access may be gated with fire department approved gate(s). The easement language shall include a provision that the temporary easement will terminate when an alternative egress has been established (i.e. Connection to Airport Road completed, Union Road Interchange completed. Etc.)

Mitigation Measure Conditions

Air Quality

- AQ-1. Future development will need to be evaluated to determine if there will be potential future project-related air quality impacts with the development of each lot.

Transportation/Traffic

- T-1. Concurrent with recordation of the first phase of Tract 3069 map, the project will dedicate a 100 ft right-of-way for the Connection Road from Wisteria Lane to Airport Road consistent with the Vesting Tentative Tract Map Exhibit C, and additional right or way as necessary to accommodate a new intersection of the Connection Road to Airport Road consistent with Exhibit B. A conceptual design for the bridge and future connection to Airport Road shall be submitted and approved by the City prior to the recordation of the Final Map
- T-2. With the development of Tract 3069 install a new two-lane divided arterial street improvements as shown on the Vesting Tentative Tract Map, Exhibit C.
- T-3. Traffic Impact Fees shall be paid at time of occupancy for all new structures built within the project area.
- T-4. Concurrent with phase 1 subdivision improvements, Wisteria Lane will be striped and signed to establish Class II bike lanes from Golden Hill Road to the Connection Road.
- T-5. Concurrent with phase 1 subdivision improvements the Connection Road will be striped and signed with Class II bike lanes.

Biological Resources

- BR-1. The canopy edge and trunk location of oak trees within 50 feet of proposed construction on the Property shall be surveyed by a licensed land surveyor and placed on all plan sets. Tree assessments should be conducted by a certified arborist or qualified botanist. Data collected for the tree shall include diameter at breast height (4.5 feet) of each stem/trunk, canopy diameter, tree height, tree health, and habitat notes (cavities for

birds or bats), raptor nests, wood rat nests, and unique features. The tree map shall be used to determine impacts to trees from the project and will inform the mitigation plan.

- BR-2. Impacts to the oak canopy or critical root zones (CRZ) should be avoided where practicable. Impacts include pruning, ground disturbance within the CRZ, and trunk damage.
- BR-3. Prior to ground breaking, tree protection fencing shall be installed as close to the outer limit of the CRZ as practicable for construction operations. The fencing shall be in place throughout the duration of the project, and removed only under the direction of the project environmental monitor or arborist, while demolition is in progress.
- BR-4. Trenching within the CRZ must be approved by the project arborist, and shall be done by hand or with an air spade. Any roots exposed by demolition shall be treated by a tree care specialist and covered with a layer of soil to match existing topography.
- BR-5. Landscape material within the CRZ must be of native, drought tolerant species. Lawns are prohibited within the CRZ.
- BR-6. Paving adjacent to and within the CRZ shall utilize interlocking pavers or equivalent that will allow proper infiltration of water and exchange of oxygen to the root zone of the tree.
- BR-7. Tree removal, if approved, shall commence within 30 days of inspection by a qualified biologist to determine the tree is not being used by nesting birds or bats at the time of removal.
- BR-8. Impacts to oak trees shall be assessed by a licensed arborist or qualified botanist prior to final inspection, and reported to the County.
- BR-9. Impacts to oaks shall be mitigated by planting additional trees on site. Any oak tree with a dbh of five inches or greater shall require mitigation. Oaks removed shall be replaced in kind at a 4:1 ratio.
- BR-10. Impacts to oaks shall be mitigated by planting additional oak trees, in kind, at a 2:1 ratio. Replacement trees shall be of one gallon size, of local origin, and of the same species as was impacted. Replacement trees shall be seasonally maintained (browse protection, weed reduction and irrigation, as needed) and monitored annually for at least seven years.
- BR-11. Replacement trees should be seasonally maintained (browse protection, weed reduction and irrigation, as needed) and monitored annually for at least 7 years. Replacement trees shall be the same species as the tree impacted or removed, and of local origin. Within one week of ground disturbance or tree removal/trimming activities, if work occurs between March 15 and August 15, nesting bird surveys shall be conducted. To avoid impacts to nesting birds, grading and construction activities that affect trees and grasslands shall not be conducted during the breeding season from March 1 to August 31. If construction activities must be

conducted during this period, nesting bird surveys shall take place within one week of habitat disturbance. If surveys do not locate nesting birds, construction activities may be conducted. If nesting birds are located, no construction activities shall occur within 100 feet of nests until chicks are fledged. Construction activities shall observe a 300-foot buffer for active raptor nests. A preconstruction survey report shall be submitted to the lead agency immediately upon completion of the survey. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements. A map of the Project site and nest locations shall be included with the report. The Project biologist conducting the nesting survey shall have the authority to reduce or increase the recommended buffer depending upon site conditions.

BR-12. A focused preconstruction survey for legless lizards shall be conducted in proposed work areas immediately prior to ground-breaking activities that would affect potentially suitable habitat, as determined by the project biologist. The preconstruction survey shall be conducted by a qualified biologist familiar with legless lizard ecology and survey methods, and with approval from California Department of Fish and Game to relocate legless lizards out of harm's way. The scope of the survey shall be determined by a qualified biologist and shall be sufficient to determine presence or absence in the project areas. If the focused survey results are negative, a letter report shall be submitted to the County, and no further action shall be required. If legless lizards are found to be present in the proposed work areas the following steps shall be taken:

- Legless lizards shall be captured by hand by the project biologist and relocated to an appropriate location well outside the project areas.
- Construction monitoring shall be required for all new ground-breaking activities located within legless lizard habitat. Construction monitors shall capture and relocate horned lizards as specified above.
- A letter report shall be submitted to the County and CDFW within 30 days of legless lizard relocation, or as directed by CDFW.

BR-13. Occupied nests of special status bird species shall be mapped using GPS or survey equipment. Work shall not be allowed within a 100 foot buffer for songbirds and 300 for nesting raptors while the nest is in use. The buffer zone shall be delineated on the ground with orange construction fencing where it overlaps work areas.

BR-14. Occupied nests of special status bird species that are within 100 feet of project work areas shall be monitored at least every two weeks through the nesting season to document nest success and check for project compliance with buffer zones. Once burrows or nests are deemed inactive and/or chicks have fledged and are no longer dependent on the nest, work may commence in these areas.

BR-15. A preconstruction survey shall be conducted within thirty days of beginning work on the site to identify if badgers are using the site. The results of the survey shall be sent to the project manager and the County of San Luis Obispo. If the pre-construction survey finds potential badger dens, they shall be inspected to determine whether they are occupied. The survey shall cover the entire property, and shall examine both old and new dens. If potential badger dens are too long to completely inspect from the entrance, a fiber optic scope shall be used to examine the den to the end. Inactive dens may be excavated by hand with a shovel to prevent re-use of dens during construction. If badgers are found in dens on the property between February and July, nursing young may be present. To avoid disturbance and the possibility of direct take of adults and nursing young, and to prevent badgers from becoming trapped in burrows during construction activity, no grading shall occur within 100 feet of active badger dens between February and July. Between July 1st and February 1st all potential badger dens shall be inspected to determine if badgers are present. During the winter badgers do not truly hibernate, but are inactive and asleep in their dens for several days at a time. Because they can be torpid during the winter, they are vulnerable to disturbances that may collapse their dens before they rouse and emerge. Therefore, surveys shall be conducted for badger dens throughout the year. If badger dens are found on the property during the pre-construction survey, the CDFW wildlife biologist for the area shall be contacted to review current allowable management practices

BR-16. Prior to removal of any trees over 20 inches DBH, a survey shall be conducted by a qualified biologist to determine if any of the trees proposed for removal or trimming harbor sensitive bat species or maternal bat colonies. If a non-maternal roost is found, the qualified biologist, with prior approval from California Department of Fish and Game, will install one-way valves or other appropriate passive relocation method. For each occupied roost removed, one bat box shall be installed in similar habitat and should have similar cavity or crevices properties to those which are removed, including access, ventilation, dimensions, height above ground, and thermal conditions. Maternal bat colonies may not be disturbed.

BR-17. Prior to issuance of grading and/or construction permits, the applicant shall submit evidence to the City of Paso Robles, Community Development Department (City) that states that one or a combination of the following three San Joaquin kit fox mitigation measures has been implemented:

- a. Provide for the protection in perpetuity, through acquisition of fee or a conservation easement of **111.68** acres of suitable habitat in the kit fox corridor area (e.g. within the San Luis Obispo County kit fox habitat area, northwest of Highway 58), either on-site or off-site, and provide for a non-wasting endowment to provide for management and monitoring of the property in perpetuity. Lands to be conserved shall be subject to the review and approval of the California Department of Fish and Wildlife (Department) and the City.

This mitigation alternative (a.) requires that all aspects of this program must be in place before City permit issuance or initiation of any ground disturbing activities.

- b. Deposit funds into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the kit fox corridor area within San

Luis Obispo County, and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (b) above, can be completed by providing funds to The Nature Conservancy (TNC) pursuant to the Voluntary Fee-Based Compensatory Mitigation Program (Program). The Program was established in agreement between the Department and TNC to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The fee, payable to "The Nature Conservancy", would total **\$279,200**. This fee is calculated based on the current cost-per-unit of \$2,500 per acre of mitigation, which is scheduled to be adjusted to address the increasing cost of property in San Luis Obispo County; your actual cost may increase depending on the timing of payment. This fee must be paid after the Department provides written notification about your mitigation options but prior to City permit issuance and initiation of any ground disturbing activities.

- c. Purchase **111.68** credits in a Department-approved conservation bank, which would provide for the protection in perpetuity of suitable habitat within the kit fox corridor area and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (c) above, can be completed by purchasing credits from the Palo Prieto Conservation Bank. The Palo Prieto Conservation Bank was established to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The cost for purchasing credits is payable to the owners of The Palo Prieto Conservation Bank, and would total **\$279,200**. This fee is calculated based on the current cost- per-credit of \$2500 per acre of mitigation. The fee is established by the conservation bank owner and may change at any time. Your actual cost may increase depending on the timing of payment. Purchase of credits must be completed prior to City permit issuance and initiation of any ground disturbing activities.

BR-18. Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the City. The retained biologist shall perform the following monitoring activities:

- i. Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction, the biologist shall conduct a pre-activity (i.e. preconstruction) survey for known or potential kit fox dens and submit a letter to the City reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed), as applicable, to address any kit fox activity within the project limits.
- ii. The qualified biologist shall conduct weekly site visits during site-disturbance activities (i.e. grading, disking, excavation, stock piling of dirt or gravel, etc.) that proceed

longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BR-19 through BR-28. Site disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason (see BR-19iii). When weekly monitoring is required, the biologist shall submit weekly monitoring reports to the City.

- iii. Prior to or during project activities, if any observations are made of San Joaquin Kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. harm or death) to kit fox. At the time a den is discovered, the qualified biologist shall contact USFWS and the CDFW for guidance on possible additional kit fox protection measures to implement and whether or not a Federal and/or State incidental take permit is needed. If a potential den is encountered during construction, work shall stop until such time the USFWS determines it is appropriate to resume work.

If incidental take of kit fox during project activities is possible, **before project activities commence**, the applicant must consult with the USFWS. The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.

- iv. In addition, the qualified biologist shall implement the following measures:
 1. Within 30 days prior to initiation of site disturbance and/or construction, fenced exclusion zones shall be established around all known and potential kit fox dens. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of the following distance measured outward from the den or burrow entrances:
 - Potential kit fox den: 50 feet
 - Known or active kit fox den: 100 feet
 - Kit fox pupping den: 150 feet
 2. All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.
 3. If kit foxes or known or potential kit fox dens are found on site, daily monitoring by a qualified biologist shall be required during ground disturbing activities.

Monitoring: Required prior to issuance of a grading and/or construction permit. Compliance will be verified by the City Planning Division.

- BR-19. Prior to issuance of grading and/or construction permits, the applicant shall clearly delineate the following as a note on the project plans: "*Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox*". Speed limit signs shall be installed on the project site within 30 days prior to initiation of site disturbance and/or construction.
- BR-20. During the site disturbance and/or construction phase, grading and construction activities after dusk shall be prohibited unless coordinated through the City, during which additional kit fox mitigation measures may be required.
- BR-21. Prior to issuance of grading and/or construction permit and within 30 days prior to initiation of site disturbance and/or construction, all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox's life history, all mitigation measures specified by the City, as well as any related biological report(s) prepared for the project. The applicant shall notify the City shortly prior to this meeting. A kit fox fact sheet shall also be developed prior to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.
- BR-22. During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavations, steep-walled holes and trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped kit fox. Any kit fox so discovered shall be allowed to escape before field activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.
- BR-23. During the site-disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved. If necessary, the pipe may be moved only once to remove it from the path of activity, until the kit fox has escaped.

BR-24. During the site-disturbance and/or construction phase, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of only in closed containers. These containers shall be regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.

BR-25. Prior to, during and after the site-disturbance and/or construction phase, use of pesticides or herbicides shall be in compliance with all local, State and Federal regulations. This is necessary to minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.

BR-26. During the site-disturbance and/or construction phase, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and City. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the USFWS and CDFW by telephone. In addition, formal notification shall be provided in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to CDFW for care, analysis, or disposition.

BR-27. Prior to final inspection, or occupancy, whichever comes first, should any long internal or perimeter fencing be proposed or installed, the applicant shall do the following to provide for kit fox passage:

- i. If a wire strand/pole design is used, the lowest strand shall be no closer to the ground than 12 inches.
- ii. If a more solid wire mesh fence is used, 8" x 12" openings near the ground shall be provided every 100 yards
Upon fence installation, the applicant shall notify the City to verify proper installation. Any fencing constructed after issuance of a final permit shall follow the above guidelines

Monitoring (San Joaquin Kit Fox Measures BR-17 to BR-27): Compliance will be verified by the City of Paso Robles, Planning Division in consultation with the California Department of Fish and Wildlife. As applicable, each of these measures shall be included on construction plans.

Cultural Resources

- Cul-1. The applicant should retain the services of a qualified archaeologist to determine whether impacts to JVW-1, -2, or -3 will occur as a result of the activities proposed as part of the project modifications.
- Cul-2. If the archaeologist demonstrates that direct impacts will result due to project modifications, a Phase II archaeological investigation should be conducted by a professional archaeologist to evaluate the eligibility of those portions of the archaeological deposits subject to impact for inclusion in the CRHR.I
- Cul-3. If that portion of the archaeological deposit is eligible for the CRHR, then the project should be modified to avoid impacting that portion. If impact avoidance is not feasible, a Phase III data recovery investigation should be conducted by a professional archaeologist to offset the loss of scientific data that will result from the disturbance of the deposit.
- Cul-4. For each investigation conducted pursuant to these recommendations (e.g., Phase II and Phase III), a report should be prepared to document the methods, analysis, and findings of the study. The report(s) would include Department of Parks and Recreation 523 update forms, to be filed with the CCIC.
- Cul-5. Step Nos. 1–4, above, should be implemented whenever a project modification results in proposed activities that would encroach on the 100-foot radius around JVW-1, -2, or -3.
- Cul-6. An Extended Phase I subsurface survey should be conducted by a qualified archaeologist to determine whether subsurface deposits associated with the isolated artifact are within proposed disturbance areas. If subsurface archaeological deposits are identified as a result of the Extended Phase I study, Phase II or Phase III excavation may be required.
- Cul-7. In addition to the site-specific measure provided above, and given the overall heightened sensitivity of the project area for the presence of archaeological cultural resources, it is recommended that prior to the issuance of a grading permit, an Archaeological Monitoring Plan (AMP) be developed for those areas of the project subjected to ground disturbance.
- Cul-8. If deposits of prehistoric or historical archaeological materials are encountered during project activities, all work within 25 feet of the discovery should be redirected, and a qualified archaeologist should be contacted to assess the situation, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. The project proponent should also be notified. Project personnel should not collect or move any archaeological materials or human remains and associated materials.

- Cul-9. Impacts to archaeological deposits should be avoided by project activities. If such deposits cannot be avoided, they should be evaluated for their CRHR eligibility, under the direction of a qualified professional archaeologist, to determine if they qualify as a historical resource under CEQA. If the deposit is not eligible, a determination should be made as to whether it qualifies as a "unique archaeological resource" under CEQA. If the deposit is neither a historical nor unique archaeological resource, avoidance is not necessary. If the deposit is eligible for the CRHR, or is a unique archaeological resource, it will need to be avoided by project actions that may result in impacts, or such impacts must be mitigated. Mitigation may consist of, but is not limited to, recording the resource; recovery and analysis of archaeological deposits; preparation of a report of findings; and accessioning recovered archaeological materials at an appropriate curation facility. Public educational outreach may also be appropriate.
- Cul-10. Upon completion of the assessment, the archaeologist should prepare a report documenting the methods and results of the investigation, and provide recommendations for the treatment of the archaeological materials discovered. The report should be submitted to the client and the CCIC.
- Cul-11. Prehistoric materials can include flaked-stone tools (e.g., projectile points, knives, or choppers) or obsidian, chert, basalt, or quartzite tool-making debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone milling equipment (e.g., mortars, pestles, or handstones).
- Cul-12. Prehistoric sites often contain human remains. Historical materials can include wood, stone, concrete, or adobe footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal, and other refuse.
- Cul-13. If human remains are encountered during project activities, work within 25 feet of the discovery should be redirected and the San Luis Obispo County Coroner notified immediately. At the same time, an archaeologist should be contacted to assess the situation and consult with agencies as appropriate. The project proponent should also be notified. Project personnel should not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner must notify the NAHC within 24 hours of this identification. The NAHC will identify a Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.
- Cul-14. Upon completion of the assessment, the archaeologist should prepare a report documenting the methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the Most Likely Descendant. The report should be submitted to the County of San Luis Obispo and the CCIC.

Attachment 9 - Exhibit B

EXHIBIT B OF RESOLUTION

CITY OF EL PASO DE ROBLES STANDARD DEVELOPMENT CONDITIONS

Planned Development _____ Conditional Use Permit _____

Tentative Parcel Map _____ Tentative Tract Map _____

Approval Body: City Council

Date of Approval: Aug. 2, 2016

Applicant: Erskine Industrial GPA

Location: East end of Wisteria Ln.

APN: 025-435-029, 030 & 031

The following conditions that have been checked are standard conditions of approval for the above referenced project. The checked conditions shall be complied with in their entirety before the project can be finalized, unless otherwise specifically indicated. In addition, there may be site specific conditions of approval that apply to this project in the resolution.

COMMUNITY DEVELOPMENT DEPARTMENT - The applicant shall contact the Community Development Department, (805) 237-3970, for compliance with the following conditions:

A. GENERAL CONDITIONS – PD/CUP:

- 1. This project approval shall expire on August 2, 2018 unless a time extension request is filed with the Community Development Department, or a State mandated automatic time extension is applied prior to expiration.
- 2. The site shall be developed and maintained in accordance with the approved plans and unless specifically provided for through the Planned Development process shall not waive compliance with any sections of the Zoning Code, all other applicable City Ordinances, and applicable Specific Plans.
- 3. To the extent allowable by law, Owner agrees to hold City harmless from costs and expenses, including attorney's fees, incurred by City or held to be the liability of City in connection with City's defense of its actions in any proceeding brought in any State or Federal court challenging the City's actions with respect to the project. Owner understands and acknowledges that City is under no obligation to defend any legal actions challenging the City's actions with respect to the project.

- 4. Any site specific condition imposed by the Planning Commission in approving this project **(Conditional Use Permit)** may be modified or eliminated, or new conditions may be added, provided that the Planning Commission shall first conduct a public hearing in the same manner as required for the approval of this project. No such modification shall be made unless the Commission finds that such modification is necessary to protect the public interest and/or neighboring properties, or, in the case of deletion of an existing condition, that such action is necessary to permit reasonable operation and use for this approval.
- 5. The site shall be kept in a neat manner at all times and the landscaping shall be continuously maintained in a healthy and thriving condition.
- 6. All signs shall be subject to review and approval as required by Municipal Code Section 21.19 and shall require a separate application and approval prior to installation of any sign.
- 7. All walls/fences and exposed retaining walls shall be constructed of decorative materials which include but are not limited to splitface block, slumpstone, stuccoed block, brick, wood, crib walls or other similar materials as determined by the Development Review Committee, but specifically excluding precision block.
- 8. Prior to the issuance of a Building Permit a landscape and irrigation plan consistent with the Landscape and Irrigation Ordinance, shall be submitted for City review and approval. The plan needs to be designed in a manner that utilizes drought tolerant plants, trees and ground covers and minimizes, if not eliminates the use of turf. The irrigation plan shall utilize drip irrigation and limit the use of spray irrigation. All existing and/or new landscaping shall be installed with automatic irrigation systems.
- 9. A reciprocal parking and access easement and agreement for site access, parking, and maintenance of all project entrances, parking areas, landscaping, hardscape, common open space, areas and site lighting standards and fixtures, shall be recorded prior to or in conjunction with the Final Map. Said easement and agreement shall apply to all properties, and be referenced in the site Covenants, Conditions and Restrictions (CC&Rs).
- 10. All outdoor storage shall be screened from public view by landscaping and walls or fences per Section 21.21.110 of the Municipal Code.
- 11. For commercial, industrial, office or multi-family projects, all refuse enclosures are required to provide adequate space for recycling bins. The enclosure shall be architecturally compatible with the primary building. Gates shall be view obscuring and constructed of durable materials. Check with Paso Robles Waste Disposal to determine the adequate size of enclosure based on the number and size of containers to be stored in the enclosure.

- 12. For commercial, industrial, office or multi-family projects, all existing and/or new ground-mounted appurtenances such as air-conditioning condensers, electrical transformers, backflow devices etc., shall be screened from public view through the use of decorative walls and/or landscaping subject to approval by the Community Development Director or his designee. Details shall be included in the building plans.
- 13. All existing and/or new roof appurtenances such as air-conditioning units, grease hoods, etc. shall be screened from public view. The screening shall be architecturally integrated with the building design and constructed of compatible materials to the satisfaction of the Community Development Director or his designee. Details shall be included in the building plans.
- 14. All existing and/or new lighting shall be shielded so as to be directed downward in such a manner as to not create off-site glare or adversely impact adjacent properties. The style, location and height of the lighting fixtures shall be submitted with the building plans and shall be subject to approval by the Community Development Director or his designee.
- 15. All walls/fences and exposed retaining walls shall be constructed of decorative materials which include but are not limited to splitface block, slumpstone, stuccoed block, brick, wood, crib walls or other similar materials as determined by the Development Review Committee, but specifically excluding precision block.
- 16. It is the property owner's responsibility to insure that all construction of private property improvements occur on private property. It is the owner's responsibility to identify the property lines and insure compliance by the owner's agents.
- 17. Any existing Oak trees located on the project site shall be protected and preserved as required in City Ordinance No.835 N.S., Municipal Code No. 10.01 "Oak Tree Preservation", unless specifically approved to be removed. An Oak tree inventory shall be prepared listing the Oak trees, their disposition, and the proposed location of any replacement trees required. In the event an Oak tree is designated for removal, an approved Oak Tree Removal Permit must be obtained from the City, prior to removal.
- 18. No storage of trash cans or recycling bins shall be permitted within the public right-of-way.
- 19. Prior to recordation of the map or prior to occupancy of a project, all conditions of approval shall be completed to the satisfaction of the City Engineer and Community Developer Director or his designee.
- 20. Two sets of the revised Planning Commission approved plans incorporating all Conditions of Approval, standard and site specific, shall be submitted to the Community Development Department prior to the issuance of building permits.

- 21. Prior to the issuance of building permits, the
 - Development Review Committee shall approve the following:
 - Planning Division Staff shall approve the following:
 - a. A detailed site plan indicating the location of all structures, parking layout, outdoor storage areas, walls, fences and trash enclosures;
 - b. A detailed landscape plan;
 - c. Detailed building elevations of all structures indicating materials, colors, and architectural treatments;
 - d. Other: Each parcel shall process a development application for the development review process for their respective development plan.

B. GENERAL CONDITIONS – TRACT/PARCEL MAP:

- 1. In accordance with Government Section 66474.9, the subdivider shall defend, indemnify and hold harmless the City, or its agent, officers and employees, from any claim, action or proceeding brought within the time period provided for in Government Code section 66499.37, against the City, or its agents, officers, or employees, to attack, set aside, void, annul the City's approval of this subdivision. The City will promptly notify subdivider of any such claim or action and will cooperate fully in the defense thereof.
- 2. The Covenants, Conditions, and Restrictions (CC&Rs) and/or Articles Affecting Real Property Interests are subject to the review and approval of the Community Development Department, the Public Works Department and/or the City Attorney. They shall be recorded concurrently with the Final Map or prior to the issuance of building permits, whichever occurs first. A recorded copy shall be provided to the affected City Departments.
- 3. The owner shall petition to annex residential Tract (or Parcel Map)_____ into the City of Paso Robles Community Facilities District No. 2005-1 for the purposes of mitigation of impacts on the City's Police and Emergency Services Departments.
- 4. Street names shall be submitted for review and approval by the Planning Commission, prior to approval of the final map.
- 5. The following areas shall be permanently maintained by the property owner, Homeowners' Association, or other means acceptable to the City:

ENGINEERING DIVISION- The applicant shall contact the Engineering Division, (805) 237-3860, for compliance with the following conditions:

All conditions marked are applicable to the above referenced project for the phase indicated.

C. PRIOR TO ANY PLAN CHECK:

- 1. The applicant shall enter into an Engineering Plan Check and Inspection Services Agreement with the City.

D. PRIOR TO ISSUANCE OF A GRADING PERMIT:

- 1. Prior to approval of a grading plan, the developer shall apply through the City, to FEMA and receive a Letter of Map Amendment (LOMA) issued from FEMA. The developer's engineer shall provide the required supporting data to justify the application.
- 2. Any existing Oak trees located on the project site shall be protected and preserved as required in City Ordinance No. 553, Municipal Code No. 10.01 "Oak Tree Preservation", unless specifically approved to be removed. An Oak tree inventory shall be prepared listing the Oak trees, their disposition, and the proposed location of any replacement trees required. In the event an Oak tree is designated for removal, an approved Oak Tree Removal Permit must be obtained from the City, prior to its removal.
- 3. A complete grading and drainage plan shall be prepared for the project by a registered civil engineer and subject to approval by the City Engineer. The project shall conform to the City's Storm Water Discharge Ordinance.
- 4. A Preliminary Soils and/or Geology Report providing technical specifications for grading of the site shall be prepared by a Geotechnical Engineer.
- 5. A Storm Water Pollution Prevention Plan per the State General Permit for Storm Water Discharges Associated with Construction Activity shall be provided for any site that disturbs greater than or equal to one acre, including projects that are less than one acre that are part of a larger plan of development or sale that would disturb more than one acre.

E. PRIOR TO ISSUANCE OF A BUILDING PERMIT:

- 1. All off-site public improvement plans shall be prepared by a registered civil engineer and shall be submitted to the City Engineer for review and approval. The improvements shall be designed and placed to the Public Works Department

(Adopted by Planning Commission Resolution _____)

Standards and Specifications.

- 2. The applicant shall submit a composite utility plan signed as approved by a representative of each public utility.
- 3. Landscape and irrigation plans for the public right-of-way shall be incorporated into the improvement plans and shall require approval by the Streets Division Supervisor and the Community Development Department.
- 4. In a special Flood Hazard Area as indicated on a Flood Insurance Rate Map (FIRM) the owner shall provide an Elevation Certificate in accordance with the National Flood Insurance program. This form must be completed by a land surveyor or civil engineer licensed in the State of California.

F. PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY OR RECORDATION OF THE FINAL MAP:

The Planning Commission has made a finding that the fulfillment of the construction requirements listed below are a necessary prerequisite to the orderly development of the surrounding area.

- 1. The applicant shall pay any current and outstanding fees for Engineering Plan Checking and Construction Inspection services.
- 2. All public improvements are completed and approved by the City Engineer, and accepted by the City Council for maintenance.
- 3. The owner shall offer to dedicate and improve the following street(s) to the standard indicated:

| | | |
|--|---------------|----------------------|
| <u> Connection Road – ‘Erskine Parkway’ </u> | | |
| Street Name | City Standard | Standard Drawing No. |
- 4. If, at the time of approval of the final map, any required public improvements have not been completed and accepted by the City the owner shall be required to enter into a Subdivision Agreement with the City in accordance with the Subdivision Map Act.

Bonds required and the amount shall be as follows:
Performance Bond.....100% of improvement costs.
Labor and Materials Bond.....50% of performance bond.

- 5. If the existing City street adjacent to the frontage of the project is inadequate for the traffic generated by the project, or will be severely damaged by the construction, the applicant shall excavate the entire structural section and replace it with a standard half-width street plus a 12' wide travel lane and 8' wide graded shoulder adequate to provide for two-way traffic.

6. If the existing pavement and structural section of the City street adjacent to the frontage of the project is adequate, the applicant shall provide a new structural section from the proposed curb to the edge of pavement and shall overlay the existing paving to centerline for a smooth transition.
7. Due to the number of utility trenches required for this project, the City Council adopted Pavement Management Program requires a pavement overlay on _____ along the frontage of the project.
8. The applicant shall install all utilities. Street lights shall be installed at locations as required by the City Engineer. All existing overhead utilities adjacent to or within the project shall be relocated underground except for electrical lines 77 kilovolts or greater. All utilities shall be extended to the boundaries of the project.
9. The owner shall offer to dedicate to the City the following easement(s). The location and alignment of the easement(s) shall be to the description and satisfaction of the City Engineer:
- a. Public Utilities Easement;
 - b. Water Line Easement;
 - c. Sewer Facilities Easement;
 - d. Landscape Easement;
 - e. Storm Drain Easement.
10. The developer shall annex to the City's Landscape and Lighting District for payment of the operating and maintenance costs of the following:
- a. Street lights;
 - b. Parkway/open space landscaping;
 - c. Wall maintenance in conjunction with landscaping;
 - d. Graffiti abatement;
 - e. Maintenance of open space areas.
11. For a building with a Special Flood Hazard Area as indicated on a Flood Insurance Rate Map (FIRM), the developer shall provide an Elevation Certificate in accordance with the National Flood Insurance Program. This form must be completed by a lands surveyor or civil engineer licensed in the State of California.
12. All final property corners shall be installed.
13. All areas of the project shall be protected against erosion by hydro seeding or landscaping.
14. All construction refuse shall be separated (i.e. concrete, asphalt concrete, wood gypsum board, etc.) and removed from the project in accordance with the City's

Source Reduction and Recycling Element.

- 15. Clear blackline mylars and paper prints of record drawings, signed by the engineer of record, shall be provided to the City Engineer prior to the final inspection. An electronic autocad drawing file registered to the California State Plane – Zone 5 / NAD83 projected coordinate system, units in survey feet, shall be provided.

PASO ROBLES DEPARTMENT OF EMERGENCY SERVICES- The applicant shall contact the Department of Emergency Services, (805) 227-7560, for compliance with the following conditions:

G. GENERAL CONDITIONS

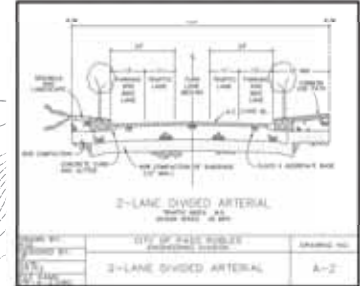
- 1. Prior to the start of construction:
 - Plans shall be reviewed, approved and permits issued by Emergency Services for underground fire lines.
 - Applicant shall provide documentation to Emergency Services that required fire flows can be provided to meet project demands.
 - Fire hydrants shall be installed and operative to current, adopted edition of the California Fire Code.
 - A based access road sufficient to support the department's fire apparatus (HS-20 truck loading) shall be constructed and maintained for the duration of the construction phase of the project.
 - Access road shall be at least twenty (20) feet in width with at least thirteen (13) feet, six (6) inches of vertical clearance.

- 2. Provide central station monitored fire sprinkler system for all residential, commercial and industrial buildings that require fire sprinklers in current, adopted edition of the California Building Code, California Fire Code and Paso Robles Municipal Code.
 - Plans shall be reviewed, approved and permits issued by Emergency Services for the installation of fire sprinkler systems.

- 3. Provide central station monitored fire alarm system for all residential, commercial and industrial buildings that require fire alarm system in current, adopted edition of the California Building Code, California Fire Code and Paso Robles Municipal Code.

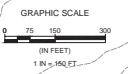
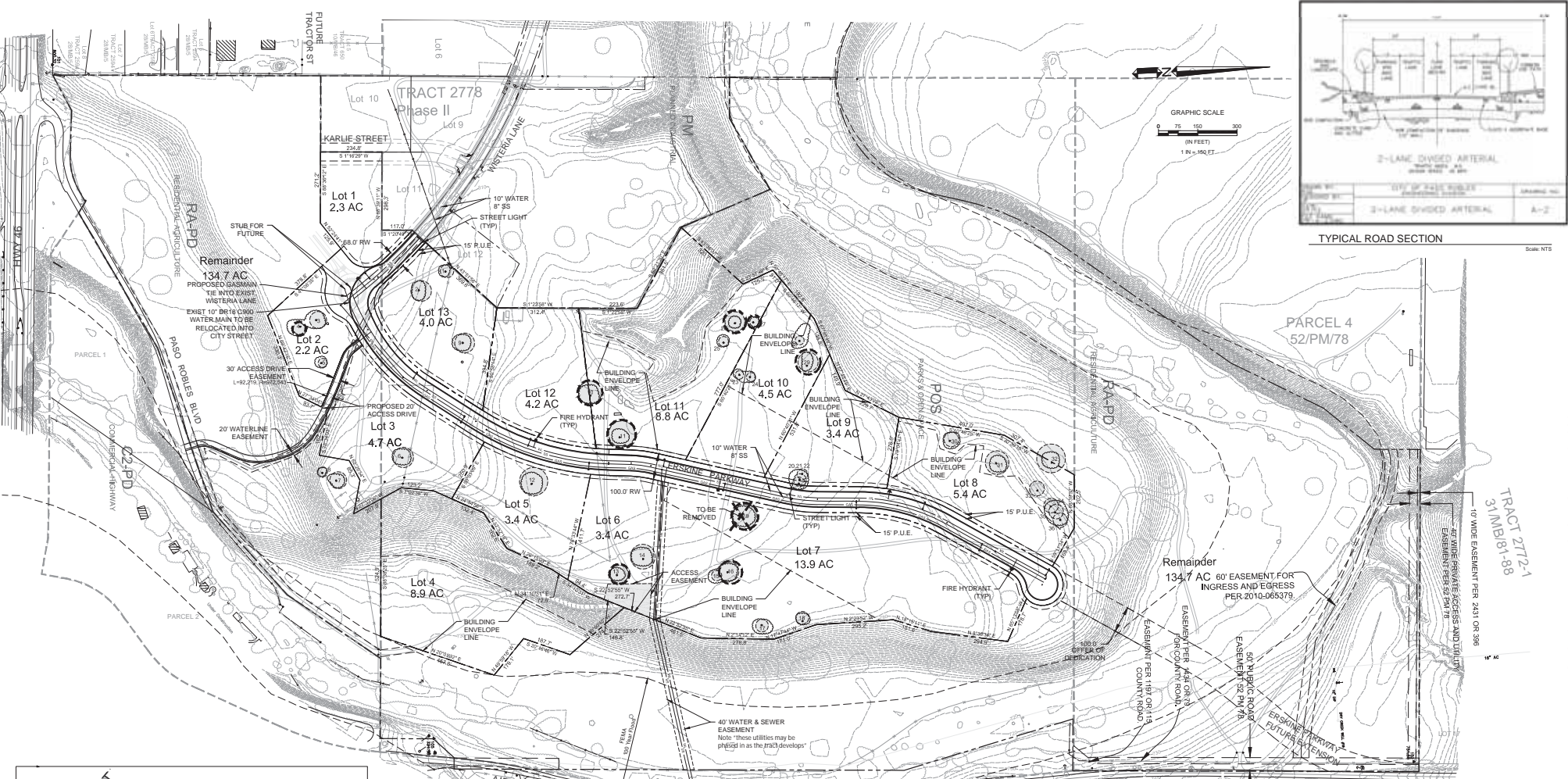
- 4. If required by the Fire Chief, provide on the address side of the building if applicable:
 - Fire alarm annunciator panel in weatherproof case.
 - Knox box key entry box or system.

- Fire department connection to fire sprinkler system.
- 5. Provide temporary turn-around to current City Engineering Standard for phased construction streets that exceed 150 feet in length.
- 6. Project shall comply with all requirements in current, adopted edition of California Fire Code and Paso Robles Municipal Code.
- 7. Prior to the issuance of Certificate of Occupancy:
 - Final inspections shall be completed on all underground fire lines, fire sprinkler systems, fire alarm systems and chemical hood fire suppression systems.
 - Final inspections shall be completed on all buildings.



TYPICAL ROAD SECTION

Scale: NTS



| PROPOSED | DESCRIPTION |
|--------------------|------------------------------|
| | GRAVITY SEWER LINE |
| | STORM DRAIN |
| | UNDERGROUND GAS LINE |
| | PROPERTY / RIGHT OF WAY LINE |
| | EASEMENT |
| ZONING DELINEATION | |
| | TREE IN POOR CONDITION |
| | TREE No. |
| | APPROX. TREE ZONE SETBACK |
| | APPROX. TREE CANOPY |

VESTING TENTATIVE TRACT MAP 3069

DESCRIPTION
BEING A SUBDIVISION OF REMAINDER LOTS "B" PER TRACT 2778 PHASE II 33MB42-44 AND PARCEL 1 AND REMAINDER LOT "C" PER PR 13-042.
76PM70

OWNER:
APN 025-435-030
Ranch & Cabal Properties Inc.
P.O. Box 510
Pasadena, CA 91147-0510
(Per Tax Records)

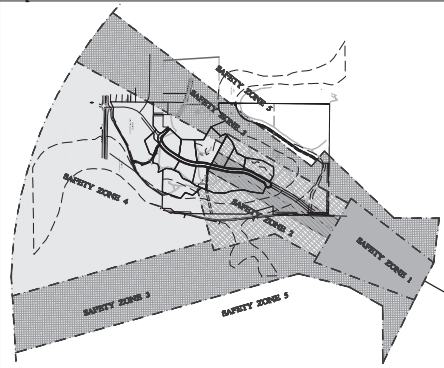
APN 025-435-030
Roll Real Estate Development L.L.C.
11444 W. Olympic Blvd., # 10
Los Angeles, CA 90064-1549
c/o Controller

VESTING TENTATIVE TRACT 3069

| | | |
|--|--|--------------------------------|
| DEPARTMENT OF PUBLIC WORKS CITY OF PASADENA, CALIFORNIA | ACCEPTED BY: _____ DATE: _____ | SHEET TM-2 2 of 2 |
| SCALE: DESIGNED BY: CD | CHECKED BY: CD | DRAWN BY: CD |
| RECORD DIV: | JOHN FALKENBERG CITY ENGINEER PASADENA, CALIF. | DRAWING NO. 540-05 |

PROJECT SUMMARY

| Lot No. | Lot Size (Ac.) | Setbacks, Tree, Easement, Slope & or Cultural | Buildable Envelope Area |
|---------|----------------|---|-------------------------|
| 1 | 2.30Ac | 15' P.U.E | 2,30Ac |
| 2 | 2.20Ac | Tree 15' P.U.E | 1,00Ac |
| 3 | 4.70Ac | Tree, 15' P.U.E, Waterline Easement, Cultural | 4,30Ac |
| 4 | 8.90Ac | Shape, Cultural | 4,40Ac |
| 5 | 3.40Ac | Tree, 15' P.U.E | 3,10Ac |
| 6 | 3.40Ac | Tree, Utility, 15' P.U.E Access | 3,00Ac |
| 7 | 13.90Ac | Tree, Utility, 15' P.U.E | 5,20Ac |
| 8 | 5.40Ac | Tree, Slope, 15' P.U.E | 3,30Ac |
| 9 | 1.40Ac | Tree, 15' P.U.E | 2,00Ac |
| 10 | 4.50Ac | Tree, 15' P.U.E | 2,60Ac |
| 11 | 8.80Ac | Tree, 15' P.U.E | 4,00Ac |
| 12 | 4.20Ac | 15' P.U.E | 4,10Ac |
| 13 | 4.00Ac | Tree, 15' P.U.E, Waterline Right of Way | 3,40Ac |
| 1/2 W | 8.20Ac | | 8,20Ac |
| Total | | | 53,40Ac |



1 AIRPORT SAFETY ZONES

Scale: 1" = 120'

Attachment 9 - Exhibit C

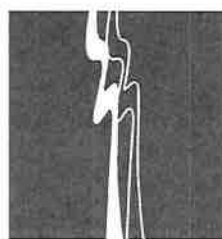
WALLACE GROUP
1412 CLAYTON COURT
SAN LUIS OBISPO, CA 93401
T 805 544-4011 F 805 544-4294
WWW.WALLACEGROUP.COM

CITY OF PASADENA
PLANNING & DEVELOPMENT
211 N. G ST.
PASADENA, CA 91101
TEL: 805.795.4100
WWW.PASADENA.CA.GOV

APPROVED FOR THE CITY OF PASADENA
NO. 57474
DATE: 2/1/11
CITY ENGINEER: JOHN FALKENBERG

Attachment 9 - Exhibit D

Public Trail Easement



WALLACE GROUP®
 CIVIL AND TRANSPORTATION ENGINEERING
 CONSTRUCTION MANAGEMENT
 LANDSCAPE ARCHITECTURE
 MECHANICAL ENGINEERING
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 PUBLIC WORKS ADMINISTRATION
 SURVEYING / GIS SOLUTIONS
 WATER RESOURCES

612 CLARION COURT
 SAN LUIS OBISPO, CA 93401
 T 805 544-4011 F 805 544-4294
 www.wallacegroup.us



40-foot public trail easement

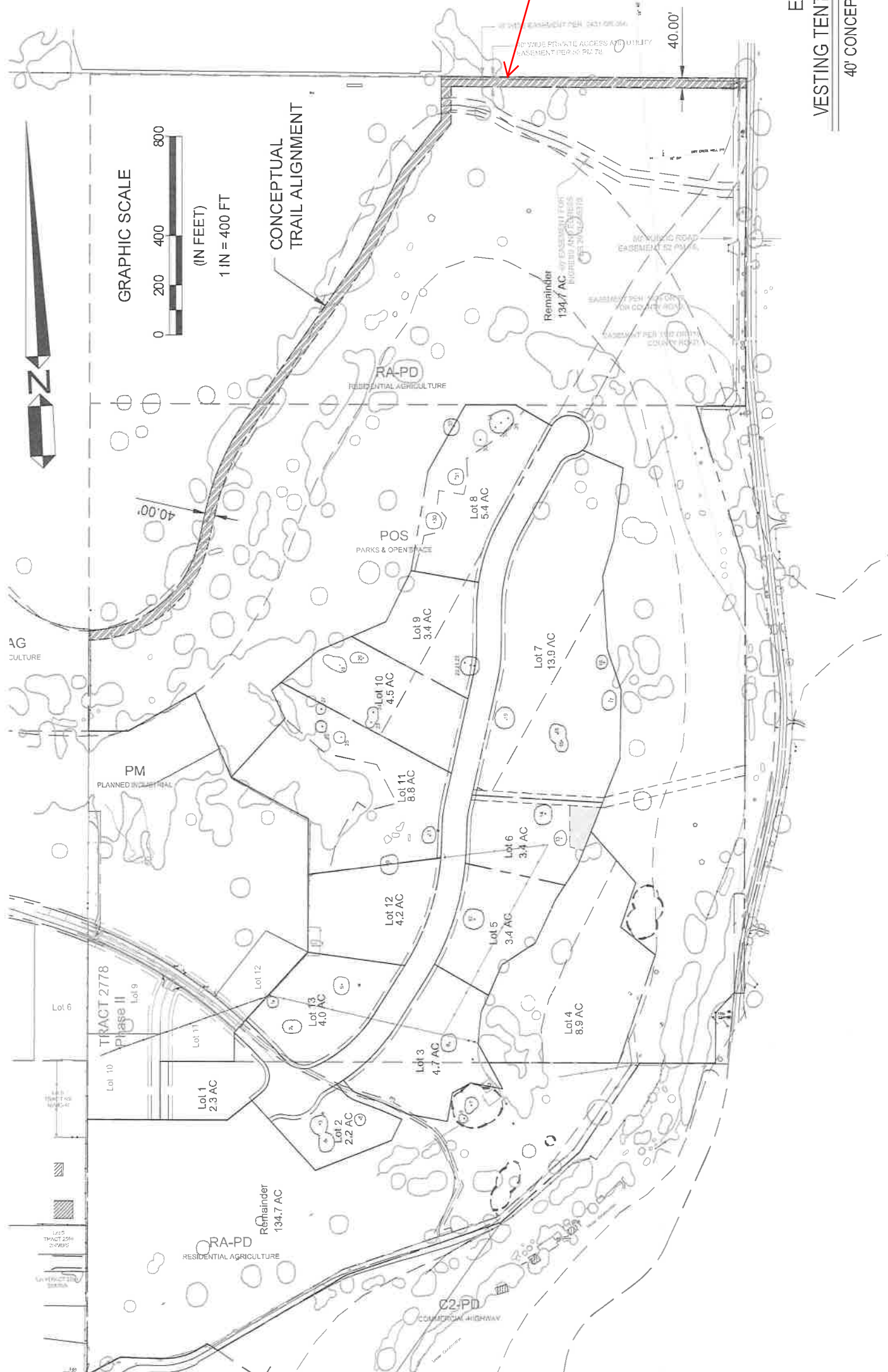


EXHIBIT FOR
 VESTING TENTATIVE TRACT MAP 3069
 40' CONCEPTUAL TRAIL ALIGNMENT

DATE: 02-09-2016

Attachment 10

Draft Resolution - E

**A RESOLUTION OF THE PLANNING COMMISSION
OF THE CITY OF EL PASO DE ROBLES
RECOMMENDING THAT THE CITY COUNCIL
OF THE CITY OF EL PASO DE ROBLES
APPROVE OAK TREE REMOVAL 14-005
APPLICANT – ERSKINE / RANCH & COAST PROPERTIES, INC.
APN: 025-435-031, 030 and 029**

WHEREAS, Kirk Consulting, on behalf of Tom Erskine and Ranch & Coast Properties, Inc., has filed an application requesting consideration of Vesting Tentative Tract Map 3069, in connection with the development of a project known as the Erskine Industrial Park General Plan Amendment (the “Project”); and

WHEREAS, the Project is located at the eastern end of Wisteria Lane, north of State Route 46 East, APN: 025-435-031, 030 and 029; and

WHEREAS, in conjunction with the subdivision is a request to remove one 48-inch Valley Oak tree (Tree No. 19) located on proposed Lot 7; and

WHEREAS, the Arborist Report also indicates that Tree No. 19, is in poor condition, has had past limb failures, it has a large split in the trunk, which extends entirely through in some areas; and

WHEREAS, the tree is necessary to remove to accommodate the new Connecting Road extension; and

WHEREAS, the Community Development Director could not make the determination that the tree is “clearly dead or diseased beyond correction,” and therefore, Section 10.01.050.C of the Oak Tree Ordinance would consider the tree “healthy” and require that the City Council make the determination of whether the tree should be removed or not, after consideration of the factors listed in Section 10.01.050.D; and

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission recommends that the City Council of the City of El Paso de Robles does hereby:

1. Authorize the removal of the 19-inch Valley oak, based on the Arborist concluding that the tree is in poor condition, has had past limb failures, and has a large split in the trunk which extends entirely through in some areas;
2. Require three (3) 1.25-inch diameter oak tree replacement trees to be plated at the direction of the Arborist.

PASSED AND ADOPTED by the City Council of the City of El Paso de Robles this 12th day of July 2016 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Bob Rollins, Chairman

ATTEST:

Warren Frace, Planning Commission Secretary

Attachment 11

CALIFORNIA ENVIRONMENTAL QUALITY ACT
INITIAL STUDY CHECKLIST FORM
CITY OF PASO ROBLES
Erskine-Justin General Plan Amendment
Public Review Period: June 24, 2016 to July 24, 2016

- 1. PROJECT TITLE:** Tom Erskine / Justin Vineyards – Wisteria Lane.
- Concurrent Entitlements:** GPA 14-001, REZONE 14-001, VESTING TENTATIVE TRACT MAP 3069, OAK TREE REMOVAL 14-010.
- 2. LEAD AGENCY:** City of Paso Robles
1000 Spring Street
Paso Robles, CA 93446
- Contact:** Darren Nash, Associate Planner
Phone: (805) 237-3970
Email: dnash@prcity.com
- 3. PROJECT LOCATION:** Eastern end of Wisteria Lane, North of State Route 46
East, Paso Robles, CA
See Attachment 1, Vicinity Map
(APN 025-435-031, 030, and 029)
San Luis Obispo County
- 4. PROJECT PROPONENT:** Tom Erskine and Justin Vineyards & Winery LLC
- Contact Person:** Jamie Kirk, Kirk Consulting
Phone: (805) 461-5765
Email: jamie@kirk-consulting.net
- 5. GENERAL PLAN DESIGNATION:** BP (Business Park), POS (Parks & Open Space), AG (Agriculture)
- 6. ZONING:** RA-PD (Residential Ag, Planned Development), PM (Planned Industrial), POS (Parks & Open Space)

7. **PROJECT DESCRIPTION:** The project consists of three (3) existing parcels, (APNs 025-435-029, 030, and 031) totaling 212 acres. This is a proposal to amend the General Plan and Zoning designations of the 77.3 acres (Lots 1-13), and rezone lots 9, 10 & 11 of Tract 2778, adjacent to proposed Tract 3069, see Attachment 5 for existing Land Use Designations, and Attachment 6, proposed Land Use Designations. Also proposed is Vesting Tentative Tract Map 3069 requesting to subdivide the three (3) existing parcels totaling 212 acres, into 13 lots that would total 77.3 acres, and one (1) 134.7 acre remainder lot, see Attachment 4, Tentative Tract Map Exhibit. This site is subject to the City of Paso Robles Airport Land Use Plan Safety Zone's 2-4, See Attachment 7, Airport Land Use Plan Exhibit.

The proposed Land Use designation changes are as follows:

General Plan Amendment: to change the existing land use designations as follows (See GPA Exhibit, Attachment 4):

- **Lots 9-11 (Tract 2778):** BP (Business Park) to CS (Commercial Services)
- **Lots 1-3:** BP (Business Park) to CS (Commercial Services)
- **Lot 4:** AG (Agriculture) / POS (Parks & Open Space) to CS (Commercial Services)
- **Lots 7-16:** POS (Parks & Open Space) to BP (Business Park)
- **Lot 17:** BP (Business Park) / POS (Parks & Open Space) to BP (Business Park);

The proposed Zoning designation changes are as follows:

Rezone: to change the existing zoning designations as follows (See Rezone Exhibit, Attachment 4):

- **Lots 9-11 (Tract 2778):** PM (Planned Industrial) to C3-PD (Commercial/Light Industrial - Planned Development Overlay)
- **Lots 1-3:** RA-PD (Residential Ag, Planned Development) to C3-PD (Commercial/Light Industrial-Planned Development Overlay)
- **Lot 4:** RA-PD (Residential Ag, Planned Development) and POS (Parks & Open Space) to C3-PD (Commercial/Light Industrial – Planned Development Overlay)
- **Lots 7-16:** POS (Parks & Open Space) to PM-PD (Planned Industrial, Planned Development Overlay)
- **Lot 17:** PM (Planned Industrial) and POS (Parks & Open Space) to PM-PD (Planned Industrial, Planned Development Overlay);

Vesting Tentative Tract Map 3069: (See Tract Map, Attachment 2):

- A request to subdivide three (3) existing parcels, APNs 025-435-029, 030, and 031, totaling 212 acres into 13 lots that would total 77.3 acres and one 134.7 acre remainder lot.
- The map includes a 2-lane arterial road which will be improved through the project site terminating at a cul-de-sac at the eastern edge of Lot 7 and 8. An offer of dedication is being provided as part of the project extending from the cul-de-sac to the south eastern edge of the property. The offer of dedication is intended to facilitate the future connection to Airport Road consistent with the General Plan Circulation Element. The subdivision recognizes the City's future plans and has been designed to accommodate the future road.

Oak Tree Removal 14-010:

- Request to remove one 48-inch Valley Oak tree (Tree No. 19) located on proposed Lot 7.

- 8. ENVIRONMENTAL SETTING:** The project is located in northeastern Paso Robles, at the eastern terminus of Wisteria Lane, north of State Highway 46 East and west of Airport Road (refer to Attachment 1, Vicinity Map). The proposed General Plan Amendment, Rezone, and Vesting Tentative Tract Map are focused within the 77.3 acre portion of the site. This area generally consists of the upper plateau above the Huer Huero Creek. The 134.7 acre remainder lot would generally include the Huer Huero Creek area, and slope areas between the creek and the upper plateau. The site is currently undeveloped and is used for cattle grazing. The existing landform of the future area of development consists of mostly flat areas, with a downward slope along the eastern and northern sides. The project site is bordered by agricultural land, the Huer Huero Creek, and commercial property.

A Biological Report, prepared in August 2014, identified habitat types consisting of cropland, oak woodland, oak savannah and riparian on the project site. Botanical surveys conducted in January, February, April, and May 2014 identified 102 species, subspecies, and varieties of vascular plants. Wildlife species identified on the site included 41 birds and three (3) mammals. No state or federally listed animals or special status plants were detected on the project site.

The site is largely surrounded by rural uses. Surrounding land uses include the Golden Hill Business Park and Lowe's shopping center to the west, the Ravine Water Park to the southeast, and agricultural land and rural residences to the east and north.

- 9. OTHER AGENCIES WHOSE APPROVAL IS REQUIRED (AND PERMITS NEEDED):** None.

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.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- 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 OF ENVIRONMENTAL IMPACTS:

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).

All answers must take account of the whole action involved. Answers should address 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.

“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.

“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 “Earlier Analyses,” as described in (5) below, may be cross-referenced).

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.

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.

Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

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

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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I. AESTHETICS: Would the project:

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| a. Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion (a-c): The visual quality of the site is moderately high since it is undeveloped open grassland visible from nearby roads. The project has the potential to alter the visual character of the existing site with future development, however the proposed land use designation changes will conform with existing land uses on the west side of the site, specifically BP (Business Park) and CS (Commercial Services). The site is not within or adjacent to a scenic vista, gateway, or scenic highway as designated by the City’s General Plan or other adopted plans or policies.

Besides the construction necessary to install the new roads and infrastructure, there is no development of buildings with this project. The future development of each lot will be subject to the development plan (PD) process which will require the submittal of architectural, grading & drainage, and landscape plans. The PD process will ensure that each individual lot is developed in a manner that does not degrade existing visual character or quality.

Therefore, the project could not result in a substantial impact on scenic resources. Consequently, this projects impact on visual quality and character will be less than significant.

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| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Sources: 1, 2, 10) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The new land use designations would increase the potential for lighting on the site with future development, however light fixtures will be evaluated with future development to ensure that they comply with the City’s requirements for light shielding and would be downcast to not shed light on adjacent property, therefore this projects impacts as a result of light glare would be less than significant.

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| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- 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?

Discussion: The project site is identified in the City General Plan, Open Space Element in Figure OS-1, and State Farmland Mapping and Monitoring Program (FMMP). The property is identified as having soil that is “Farmland of Local Potential” and “Grazing Land.” The property has been used for dry-farmed barley production, and is plowed at least twice a year and cattle grazing. The project would not convert prime, unique or farmland of Statewide importance to other uses. Therefore, this project would result in less than significant impacts to agricultural soils monitored in the State FMMP.

- b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Discussion: The site is not under Williamson Act contract: however it is currently used for agricultural purposes. The southernmost and northernmost portions of the project site are designated as “Residential Agriculture Planned Development”. The proposed zoning amendment would change this designation to non-agricultural zoning. This would convert approximately 77 acres of agricultural land. If the General Plan Amendment and Rezone is approved, the zoning and land use designations would be commercial and light-industrial, which would not be in conflict with agricultural zoning and future land uses. Therefore impacts to agricultural zoning would be less than significant.

- c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 5114(g))?

Discussion: There are no forest land or timberland resources within the City of Paso Robles.

- d. Result in the loss of forest land or conversion of forest land to non-forest use?

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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Discussion: See II c. above.

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| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Discussion: Of the 77 acre area that Tract 3069 encompasses, approximately 70 acres is currently zoned Parks and Open Space (POS), the other 7 acres is zoned Residential Agriculture (RA). Under the current POS zoning, a majority of the site could be developed with uses other than agricultural related uses, such as golf courses, resorts, and hotels. Additionally, there are many non-agricultural uses that could be developed in the existing RA zone, such as residential, churches, and wine tasting rooms.

Given the site has existing zoning that would allow for non-agricultural uses, the impacts related to this projects request to change to commercial and industrial zoning along with the proposed subdivision, the fact that this project will develop land that is currently used for cattle grazing, to non-agricultural use, would be less than significant.

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

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|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a. Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 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)? (Source: 11) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Expose sensitive receptors to substantial pollutant concentrations? (Source: 11) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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| e. Create objectionable odors affecting a substantial number of people? (Source: 11) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion (a-e): This project was sent to the San Luis Obispo County Air Pollution Control District (APCD) for review to determine if an Air Quality Study would be necessary for the project. APCD staff indicated that since there is no development proposed, the General Plan Amendment, Rezone, and Tract would not create impacts to Air Quality. In conjunction with the development of each parcel, the air quality impacts will need to be evaluated. The grading necessary to install the new road would be addressed as part of the grading permit, where standard dust control measures would be applied to the grading permit.

While there would not be Air Quality impacts resulting from this General Plan Amendment, Rezone, and Tract Map, since there is no development occurring, a mitigation measure will be added that indicates that future development will need to be evaluated to determine if there will be potential future project-related air quality impacts with the development of each lot. It may be determined that mitigation measures are necessary to reduce air quality impacts to a level of insignificance. Since air quality impacts will be evaluated as part of the development review process of each parcel, and any necessary mitigation will be required to reduce air quality impacts to a level of insignificance, this projects impacts on air quality will be less than significant with the mitigation measure incorporated. See mitigation measure AQ-1 in the Mitigation Monitoring and Reporting Table, Attachment 1.



IV. BIOLOGICAL RESOURCES: Would the project:

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| 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|

Discussion: The Biological Report prepared by Althouse and Meade, Inc, dated August 2014, indicates that five (5) special status plant species have potential to occur in the Study Area based on review of known ecological requirements of these species and habitat conditions observed, however no special status plant species were detected in the Study Area during botanical surveys in January, February, April and May 2014. No impacts to special status plants are expected from the proposed project since it does not include physical construction and site disturbance; therefore no mitigations are required.

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| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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The Biological Report indicates that appropriate habitat is present in the Study Area for 18 special status animals, however after surveys were conducted the report concluded that the project could impact five (5) special status animals. The animals include the Silvery Legless Lizard, Specials Status Birds, American Badger, Bats, and the San Joaquin Kit Fox.

Mitigation measures BR-1 to BR-27 recommended in the Mitigation Monitoring & Reporting Plan (Attachment 1) ensures that future site disturbance shall avoid impacts to nesting birds, legless lizards, American badger, and bats.

The proposed General Plan Amendment and Vesting Tentative Tract Map would create lots on cropland habitat. Dry grain cropland is a habitat type that San Joaquin kit fox (SJKF) can occupy. A San Joaquin kit fox habitat evaluation has been prepared for the project that identifies specific habitat impacts and determines appropriate compensatory mitigation (as per BR-14). The SJKF habitat evaluation form produced a score of 65 for the project site. This score is equivalent to a 2 to 1 mitigation ratio for mitigation acres to impacted acres. Therefore, the mitigation requirement would be two-times the impacted area (55.84 acres), or 111.68 acres, or 111.68 SJKF mitigation credits. Additional standard mitigation measures are provided contribute to reducing impacts to San Joaquin kit fox at the time of future site disturbance and development. Therefore, the potential adverse effect of the project on special status species can be reduced to less than significant, with the mitigation measures incorporated.

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?

Discussion: The Biological Report prepared by Althouse and Meade, Inc, dated August 2014, indicates that riparian habitat occurs along the Huer Huero River, however the proposed project would not be within 500 feet of the Huer Huero River banks, and would not affect riparian habitat.

There are several oaks within the project area that have the potential for being disturbed. The project proposes to remove one (1) oak tree (Tree No. 19). This tree is in poor condition and is necessary to remove to accommodate the new road extension. Oak trees that are 6 inches in diameter (dbh) are protected under the City’s Oak Tree Preservation Ordinance. The proposed removal (if approved) would require oak tree replacement mitigation by planting a minimum of 25% of the total combined diameter for all oak trees removed. Tree protection is also required for work that may occur within the “critical root zone” of remaining trees. An Arborist Report (refer to Arborist Report, Attachment 11) was prepared for this project. The Arborist Report, along with the Biological Report identifies oak tree mitigation measures to reduce the potential impacts to a less than significant level. See mitigation measures BR-1 to BR-10 for oak tree related mitigations in the Mitigation Monitoring and Reporting Plan, Attachment 1.

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| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion: The Biological Report did not indicate that there were any wetlands, or hydrologic features other than the Huer huerdo Creek. Since the project is located over 500 feet from the Huero huerdo Creek, the Biological Study indicates that the project will have no impact on the creek.

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| 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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Discussion: The biological study indicates that the cropland and oak savanna habitat in the Study Area is potential habitat for kit fox, and is within the area designated by the CDFW as a 3 to 1 mitigation area. A San Joaquin kit fox habitat evaluation was prepared for the project plans, and based on the score of a 65 concludes that the mitigation ratio for the project should be 2:1. Mitigation and protection measures for SJKF are provided in mitigation monitoring and reporting plan (Attachment 1). Therefore, the potential adverse effect of the project on migratory corridors can be reduced to a less than significant with mitigation measures incorporated.

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| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|

Discussion: There are 36 oak trees within the 77-acre area intended for future development on Lots 1-13. These trees meet the qualifications for protection under the City Oak Tree Preservation Ordinance (2002). Of the 36 trees, all are being protected, except for Tree No. 19, which is located on proposed Lot 7. An Arborist Report has been provided which concludes that the tree is in poor condition and is recommended for removal.

The proposed removal, if approved, would require oak tree replacement mitigation by planting a minimum of 25% of the total combined diameter of all oak trees to be removed. Additionally, the Biological Study, along with the Arborist Report provide tree protection measures that will need to be applied during the construction of the project, and future development of each lot.

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| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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Mitigation and protection measures for oak trees are provided in mitigation monitoring and reporting plan (Attachment 1). Therefore, the potential adverse effect of the future development project on the oak trees can be reduced to a less than significant with mitigation measures incorporated.

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| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: There are no Habitat Conservation Plans or other related plans applicable in the City of Paso Robles.

V. CULTURAL RESOURCES: Would the project:

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|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion (a-d): A Phase I Archaeological Survey (Attachment 7) was conducted during the month of October 2013, over the 201 acre study area. The Survey identified three previously undocumented prehistoric archaeological sites and a single prehistoric isolate in the project area. The archaeological sites are low-density lithic debitage and tool scatters in the southeastern portion of the project area. The archaeological isolate, a leaf shaped projectile point fragment, is in the same vicinity of the prehistoric sites. The results of the study indicate archaeological cultural resources that may meet the CEQA definition of historical resources and/or unique archaeological resources are on the property. A further cultural resources study (Phase II Archaeological Survey) would be required to formally evaluate the resources for their eligibility for inclusion in the California Register of Historical Resources (CRHR).

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| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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The proposed project consists of a subdivision of property and no development is proposed at this time. Potential impacts to the identified archaeological cultural resources from future development can be avoided through project design modification and the implementation of the mitigation measures provided in the Phase I Archaeological Survey. The mitigation measures CR-1 to CR-13 are included in the Mitigation Monitoring & Reporting Plan, Attachment 1). With mitigation incorporated, this project will result in less than significant impacts on cultural resources.



VI. GEOLOGY AND SOILS: Would the project:

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. (Sources: 1, 2, & 3)

Discussion: The potential for and mitigation of impacts that may result from fault rupture in the project area are identified and addressed in the General Plan EIR, pg. 4.5-8. There are two known fault zones on either side of the Salinas River Valley. The Rinconada Fault system runs on the west side of the valley, and grazes the City on its western boundary. The San Andreas Fault is on the east side of the valley and is situated about 30 miles east of Paso Robles. The City of Paso Robles recognizes these geologic influences in the application of the California Building Code (CBC) to all new development within the City. Review of available information and examinations indicate that neither of these faults is active with respect to ground rupture in Paso Robles. Soils and geotechnical reports and structural engineering in accordance with local seismic influences would be applied in conjunction with any new development proposal. Based on standard conditions of approval, the potential for fault rupture and exposure of persons or property to seismic hazards is not considered significant. There are no Alquist-Priolo Earthquake Fault Zones within City limits.

ii. Strong seismic ground shaking? (Sources: 1, 2, & 3)

Discussion: Future buildings within this project will be constructed to current CBC codes. The General Plan EIR identified impacts resulting from ground shaking as less than significant and provided mitigation measures that will be incorporated into the design of this project including adequate structural design and not constructing over active or potentially active faults. Therefore, impacts that may result from seismic ground shaking are considered less than significant.

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| iii. Seismic-related ground failure, including liquefaction? (Sources: 1, 2 & 3) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion: Per the General Plan EIR, the project site is located in an area with soil conditions that have a moderate potential for liquefaction or other type of ground failure due to seismic events and soil conditions. To implement the EIR’s mitigation measures to reduce this potential impact, the City has a standard condition to require submittal of soils and geotechnical reports, which include site-specific analysis of liquefaction potential for all building permits for new construction, and incorporation of the recommendations of said reports into the design of the project.

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| b. Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Discussion: Per the General Plan Safety Element, the project site is in an area that is designated a low-risk area for landslides. Therefore, potential impacts due to landslides is less than significant.

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| c. Result in substantial soil erosion or the loss of topsoil? (Sources: 1, 2, & 3) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Discussion: Per the General Plan EIR the soil condition is not erosive or otherwise unstable. As such, no significant impacts are anticipated. A geotechnical/ soils analysis will be required prior to issuance of building permits that will evaluate the site specific soil stability and suitability of grading and retaining walls proposed. This study will determine the necessary grading techniques that will ensure that potential impacts due to soil stability will not occur. An erosion control plan shall be required to be approved by the City Engineer prior to commencement of site grading.

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| d. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Discussion: See response to item a.iii, above

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| e. Be located on expansive soil, as defined in Table 18-1-B of the California Building Code, creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Discussion: See response to item a.iii, above.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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| f. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion: The development will be connected to the City’s municipal wastewater system, therefore there would not be impacts related use of septic tanks.



VII. GREENHOUSE GAS EMISSIONS: Would the project:

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|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gasses? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion (a,b): The proposed project consists of a subdivision of property and no development is proposed at this time. With the future development review of each parcel, future impacts as a result of greenhouse gas emissions will be evaluated and necessary mitigation applied at that time.



VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

| | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: The project consists of the subdivision of the 77 acre portion of land into 13 lots for future commercial and light-industrial uses. The project does not include use of, transport, storage or disposal of hazardous materials that would create a significant hazard to the public or environment. Impacts related to hazards and hazardous materials will be evaluated on project by project bases as each lot develops in the future.

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| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion: See VIII a. above.

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| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: See VIII a. above. The project is not located within one-quarter mile of a school.

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| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: The project site is not identified as a hazardous site per state Codes.

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| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The project is located in proximity to the Paso Robles Municipal Airport and is subject to the requirements within an Airport Land Use Plan. The project is within the approach zone defined as Airport Safety Zones 2, 3, and 4. Uses such as light-industrial, warehousing, and commercial uses are permitted in the PM and C3 zones, as outlined in Table 6 of the Airport Land Use Plan, respective of each Safety Zone. Safety Zone 2 prohibits structures, congregations of equipment or vehicles, or public venues within 250 feet of the extended runway center line. Building envelope lines have been identified on lots 7-10 to ensure structures and uses are not located within the runway setback limitations outlined in Table 5 of the ALUP.

The design of the lots, with the building envelope lines prohibiting development within Zone 2, and the policies and guidelines listed in the Airport Land Use Plan detail mitigation measures to reduce safety hazards for people working in the project area. Any future development would be required to comply with these policies reducing the impacts to less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion: The project is not located within the vicinity of a private airstrip.

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| g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: The City does not have any adopted emergency response plans. As proposed, future development would not interfere with emergency response.

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| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: The proposed project consists of a subdivision of property and general plan amendment, and no development is proposed. There will be no impact from the subdivision or general plan amendment.

IX. HYDROLOGY AND WATER QUALITY: Would the project:

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| a. Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Discussion: The only development that will occur with this project will be the grading and construction of the new road. With the development of the road will be the installation of multiple storm water bio-retention facilities (terminal percolation facilities) that will accept the storm water from the road. The future development of each lot will be required to address storm water and waste discharge on its individual merits as part of the City's development review process. As result of the road design including bio-retention facilities to handle storm water runoff from the road, the project will not have an impact on water quality standards or waste discharge.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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| 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., Would the production rate of pre-existing nearby wells drop to a level which would not support existing land uses or planned uses for which permits have been granted)? Would decreased rainfall infiltration or groundwater recharge reduce stream baseflow? (Source: 7) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion: A Water Supply Evaluation (WSE) was prepared for this project by the hydro-engineering firm, TODD Groundwater (March, 2016), which is provided in Attachment 8. The WSE estimates the proposed project-related water demand and available water resources to supply the project in the near- and long-term horizon, under normal, drought, and sustained drought conditions. The study then evaluates the ability to serve the projected water needs. The assumptions in the WSE are based on the planned growth scenario through General Plan build-out as documented in the City’s adopted 2010 Urban Water Management Plan (UWMP), as well as current water supply availability from the City’s water resource allocations of groundwater, Salinas River underflow, and water from the Nacimiento Water Project.

Water demand includes water necessary to serve the proposed 13 lots, ranging in size from 2.2 to 13.9 acres with the potential of approximately 77 acres of development. There is no development proposed at this time, however, assumptions were made based on the maximum land use densities and minimum percent open space for various Airport Zones within the project area for each of the 13 lots, as well as landscaping in the public right-of-way. At buildout, the project will require about 33 acre feet per year of City-supplied potable water. The WSE concludes that the existing and planned water resources available are adequate to provide a reliable long-term water supply for the project under normal and drought conditions provided that the additional Nacimiento Project water is secured. As demonstrated the proposed project will not 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 as a result of this project.

Additionally, through implementation of post-construction hydromodification low-impact development features and best practices, the project will be designed to infiltrate all new stormwater runoff on the project site, and will not result in decreased rainfall infiltration or groundwater recharge that may reduce stream baseflow. The applicant is not proposing a specific development plan application, therefore general mitigation measures for future development is appropriate, which would include the requirement to use recycled water when it becomes available, and metering of wells. With incorporation of these measures the proposed project will result in less than significant impacts to groundwater recharge capacity, with stormwater management mitigation measures incorporated into the future project design. The mitigation measures HYD-1 & HYD -2 are included in the Mitigation Monitoring & Reporting Plan, Attachment 1).

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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| 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? (Source: 10) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The drainage pattern on the site would not be substantially altered with development of this project since the project largely maintains the existing, historic drainage pattern of the property, and drainage will be maintained on the project site. Additionally, surface flow from the new road would be directed to designed drainage areas for percolation in bioswale drainage features on the west side of the road.

The project includes subdividing approximate 69 acres into 13 lots, ranging in size from 2.2 to 13.9 acres, plus about 8.2 acres of right of way, and the 135 acre remainder lot, for a total of 212 acres. The 13 developable lots end at the top of the slope. The slope areas and all of the land on either side of the Huer Huero Creek are included within the 135 acre remainder lot, which is not proposed to be developed. With the development of each lot, storm water will need to be designed to be handled on the lot. Therefore, the Huer Huero will not be impacted from this project or result in erosion or siltation on- or off-site. Therefore, impacts to drainage patterns and facilities would less than significant.

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|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 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? (Source: 10) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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Discussion: See IX c. above. Drainage resulting from development of this property will be maintained onsite and will not contribute to flooding on- or off-site. Thus, flooding impacts from the project are considered less than significant.

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| 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? (Source: 10) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: As noted in IX a. above, surface drainage will be managed onsite and will not add to offsite drainage facilities. Additionally, onsite LID drainage facilities will be designed to clean pollutants before they enter the groundwater basin. Therefore, drainage impacts that may result from this project would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|--------------------------|
| f. Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion: See answers IX a. – e. This project will result in less than significant impacts to water quality.

| | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: There is no housing associated with this project nor is there any housing in the near vicinity downstream from the site. The 100 year flood hazard area is located adjacent to the Huer Huero Creek, and is within the Remainder Parcel, that is not proposed to be developed. Therefore, this project could not result in flood related impacts to housing.

| | | | | |
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| h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: See IX g. above

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|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: See IX h. above. Additionally, there are no levees or dams in the City.

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| j. Inundation by mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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Discussion: In accordance with the Paso Robles General Plan, there is no mudflow hazards located on or near the project site. Therefore, the project could not result in mudflow inundation impacts.

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| k. Conflict with any Best Management Practices found within the City's Storm Water Management Plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project will implement the City's Storm Water Management Plan - Best Management Practices, and would therefore not conflict with these measures.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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| 1. Substantially decrease or degrade watershed storage of runoff, wetlands, riparian areas, aquatic habitat, or associated buffer zones? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion: The project will incorporate all feasible means to manage water runoff on the project site. There are no wetland or riparian areas in the near vicinity, and the project could not result in impacts to aquatic habitat. Therefore, the project will not result in significant impacts to these resources.

X. LAND USE AND PLANNING: Would the project:

| | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project will continue a development pattern that has already been established with the Golden Hill Business Park that currently exists along Wisteria Lane, to the undeveloped 77 acre area portion of the site. The site is surrounded on three sides by the Huer Huero Creek. The project will therefore not physically divide an established community.

| | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: This is a proposal to subdivide three (3) existing parcels, (APNs 025-435-029, 030, and 031), totaling 212 acres into 13 lots that would total 77.3 acres and one 134.7 acre remainder lot. Along with the subdivision is a request to amend the General Plan and Zoning designations of the 77.3 acres (Lots 1-13), and rezone 3 existing lots located in Tract 2778, to Commercial/Light Industrial (C3-PD) and Planned Industrial (PM-PD), with a Planned Development (PD) Overlay. Changing to these designations from Rural AG and Parks and

Open Space would be a consistent zoning designation to the adjacent Golden Hills Business Park, which is zoned PM, and the C3-PD parcels being the same zoning as the lots within the Wallace Industrial area, nearby to the southwest. With the change of zoning and land use designations, the proposed project would be a consistent land use and zoning designations to adjacent and nearby properties, and therefore not be in conflict with the City's General Plan and Zoning Ordinance.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|-------------------------------------|
| c. Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion: There are no habitat conservation plans or natural community conservation plans established in this area of the City. Therefore, there would be no conflicts.

XI. MINERAL RESOURCES: Would the project:

| | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? (Source: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: There are no known mineral resources at this project site.

| | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? (Source: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: There are no known mineral resources at this project site.

XII. NOISE: Would the project result in:

| | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 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? (Source: 1) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: In accordance with the General Plan Noise Element, conditionally acceptable CNEL noise exposure for commercial uses is up to 78 Ldn or CNEL, dBA, and for industrial/manufacturing is up to 80 Ldn or CNEL, dBA. Buildings within the CNEL range would be required to apply (commonplace) construction features to reduce ambient noise levels to an acceptable range, up to a maximum of 80 CNEL. While the connection of the new street will provide an arterial roadway that connects to Airport Road, it is not anticipated to be a roadway that would produce significant traffic noise levels. Furthermore, based on the types of commercial, manufacturing and industrial uses proposed, noise from roadway traffic would be less than significant level on people working within the commercial and industrial businesses.

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Significant
Impact | Less Than
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with
Mitigation
Incorporated | Less Than
Significant
Impact | No
Impact |
|---|---|---|---|--------------------------|
| b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion: There are no significant groundborne vibration or noise level sources within the vicinity of the project site that could impact future businesses. Construction noise and vibration of the proposed project that may affect adjacent properties would be minimal since the proposed parcels are multiple acres in size, and noise would only occur during daytime hours of construction, and would cease upon completion of the project. Therefore, groundborne vibration and noise would be less than significant.

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|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The project at this time is the creation of a commercial/industrial subdivision, with lots that range in size from 2 to 13 acres. The creation of the subdivision will not permanently increase the ambient noise levels. Future development of each parcel will need to be evaluated at the time of the development review process to determine proposed uses, and anticipated noise levels. Therefore, this projects impact related to the permanent increase in noise levels in the vicinity will be less than significant.

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: as noted in XII b. above, the project would result in construction-related noise, which would not be significant since the construction site would be located at least 220 feet from the nearest structure on adjacent property, and construction would only occur during daytime hours. The applicant would need to comply with noise standards in the zoning ordinance, and not create nuisance noise between 7:00 pm and 7:00 am.

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

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| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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Discussion (a-e): The proposed subdivision and subsequent General Plan Amendment is located within the Airport Land Use Plan for the Paso Robles Municipal Airport, Amended May 2007. Policies and guidelines listed in the Airport Land Use Plan detail mitigation measures to reduce safety hazards for people working in the project area. Any future development would be required to comply with these policies reducing the impacts to less than significant.

XIII. POPULATION AND HOUSING: Would the project:

- 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)? (Source: 1)
- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

Discussion: The proposed General Plan Amendment and subdivision project will allow for future development of the lots into commercial, industrial and manufacturing uses that will create jobs that can be absorbed by the local and regional employment market, and will therefore not create the demand for new housing or population growth or displace housing or people.

- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: There is no existing residential units on the project site, therefore there is not impact.

- c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?
- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: See response XIII b.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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XIV. PUBLIC SERVICES: 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:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a. Fire protection? (Sources: 1,10) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Police protection? (Sources: 1,10) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Other public facilities? (Sources: 1,10) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion (a-e): The proposed project will not result in a significant demand for additional new services since it is not proposing to include new neighborhoods or a significantly large scale development, and the incremental impacts to services can be mitigated through payment of development impact fees. Therefore, impacts that may result from this project on public services are considered less than significant.

XV. RECREATION

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion (a&b): The proposed project consists of a subdivision of property and general plan amendment, that will not encourage new housing demands and use of recreational facilities, it will not result impacts to recreational facilities.

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| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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XVI. TRANSPORTATION/TRAFFIC: Would the project:

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| <p>a. Conflict with an applicable plan, ordinance or policy establishing measures or 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?</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <p>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?</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Discussion (a,b): One of the primary benefits of this project to the community is the extension of Wisteria Lane and the dedication of the road that will eventually connect to Airport Road. This extension of the road is identified in the City’s Circulation Element as a project that will meet the parallel routes requirements.

A Traffic Impact Analysis was prepared for the project by Central Coast Transportation Consulting dated December 2015. The study evaluated the potential transportation impacts of Vesting Tentative Tract Map 3069 and an associated General Plan Amendment in Paso Robles. The project site consists of roughly 60 acres located east of the existing end of pavement on Wisteria Lane, north of State Route 46 E (SR 46) and west of Airport Road. The project’s location and study intersections are shown on Figure 1 and Figure 2 of the Traffic Study, Attachment 9.

The following study intersections were evaluated during the weekday morning (7-9 AM) and evening (4-6 PM) time periods under Existing, Near-Term, and Cumulative conditions with and without the project:

1. Wisteria Lane/Golden Hill Road
2. Dallons Drive/Golden Hill Road
3. State Route 46 E/Golden Hill Road (Caltrans intersection)

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| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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The project is expected to generate 4,452 daily trips, 614 AM peak hour trips, and 603 PM peak hour trips on a typical weekday. The City’s Transportation Impact Analysis Guidelines and Caltrans criteria are applied to identify transportation deficiencies, summarized below:

Traffic Operations: The following deficiencies and improvements are noted:

Impact Trans -1

- Wisteria Lane/Golden Hill Road: Long westbound queues are expected during the PM peak hour with the future development project in place. Installation of a dedicated northbound right-turn lane or a single lane roundabout would reduce queues and provide acceptable operations. A traffic signal would also reduce queuing and provide acceptable operations, but the peak hour signal warrant was not met.

Impact Trans-2

- Dallons Drive/Golden Hill Road: This intersection would operate unacceptably under Cumulative conditions with the future development project in place. Installation of a traffic signal or multi-lane roundabout would provide acceptable operations.

Impact Trans -3

- SR 46/Golden Hill Road: The addition of project traffic would worsen PM peak hour operations to LOS D under Near Term Plus Project, and LOS F under Cumulative Plus Project conditions. Per the Caltrans Corridor Study, this remains a low priority location for future improvements and improvements should focus on local parallel routes funded by the City’s traffic impact fee. The City’s Traffic Impact Fee program funds improvements to parallel local routes and the project provides an offer of dedication enabling the connection of Airport Road to Wisteria Lane. This will provide access to the Airport without relying on SR 46 and will improve parallel routes.

As noted above, this project when developed will create some deficiencies in the three noted intersections (Impact Trans 1, 2 & 3). The deficiencies are considered significant impacts. The study indicates traffic improvement projects that can be constructed that would reduce the impacts to a less than significant level. These mitigations include off-site projects as described above.

The tentative subdivision map provides a vital component of the City’s Circulation Element by providing most of the right-of-way for the Connection Road between the “interchange” at Union Road - Highway 46E and the northerly extension of a connecting road to Airport Road (CF-3 Needs List Project). Additional right-of-way is needed to accommodate a new Connection Road – Airport Road intersection in the northeast corner of the Remainder Parcel.

The City can construct a bridge or other crossing in this right-of-way over the Huer Huero and make a connection from Airport Road to Wisteria Lane. This route allows Airport area employee-business traffic to avoid Highway 46E in getting to and from downtown.

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| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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As a result of this project dedicating the necessary right-of-way for the Connection Road, constructing the road within the boundaries of tentative subdivision map, striping for bike lanes on the existing Wisteria Lane and the new Connection Road, and all future buildings paying traffic impact fees, this project will be able to mitigate its impacts without the requirement to participate in improvements at the off-site intersections described above. The project will mitigate its fair share of traffic impacts on site and adjacent to this project. The mitigation measures T-1 to T-5 are included in the Mitigation Monitoring & Reporting Plan, Attachment 1).

- 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?

Discussion: This project will not require a change in air traffic patterns, result in an increase in air traffic levels, or change the location of the current air traffic patterns, therefore there would be no impacts to air traffic.

- d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Discussion: The project has been designed in a manner that would provide lots, utilities and streets designed to comply with City standards, including uses that would be compatible with the PM and C3 zoning districts, therefore impacts as a result of hazards or incompatible uses, would be less than significant.

- e. Result in inadequate emergency access?

Discussion: The extension of Wisteria Lane will be a City standard street that meets the requirements for the street width, and cul-de-sac dimensions. A second point of access will be provided for with a connection of the new connection road with Tractor Street, which will provide for acceptable emergency access.

- 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?

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| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
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Discussion: The extension of Wisteria Lane for the future connection to Airport Road is a connection of road identified in the City’s Circulation element as an important connection that will provide a parallel route to Highway 46 East, and provide for vehicles, transit, pedestrians, and bike connections between the downtown and the Airport. Also, a condition of approval for this project includes easements within the Huer Huero Creek to be dedicated to the City, where future connection trails can be located. This projects’ contribution to this roadway and trial extension will help provide future transit, bicycle, and pedestrian connections, therefore the project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, and would be less than significant.

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Discussion: The future development project will comply with all applicable wastewater treatment requirements required by the City, RWQCB and the State. Therefore, there will be no impacts resulting from wastewater treatment from this project.

- 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?

Discussion: The construction of water and sewer lines will be completed at the time the road extension is constructed. Each lot will be constructed on a lot by lot basis in the future. The construction of the utilities will be evaluated during future project review and subject to the mitigation measures outlined in the environmental review. Therefore, impacts as a result of this construction would be less than significant.

- 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?

Discussion: This project will be constructing storm water drainage facilities to manage the storm water runoff from the future road extension. In the future as each lot develops, storm water will be handled on a lot by lot basis. Therefore, impacts from construction of storm water facilities would be less than significant.

| | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|-------------------------------------|--------------------------|
| d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion: a Water Supply Evaluation was prepared for this project (see Attachment 8), which concluded that the proposed project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, such that it would result in a net deficit in aquifer volume or a lowering of the local groundwater table level as a result of this project. Therefore, the project would result in less than significant impacts to use of water resources.

| | | | | |
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| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: Per the City’s Sewer System Master Plan, updated January 2015, the City’s upgraded wastewater treatment facility has adequate capacity to serve this project as well as existing commitments.

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| f. Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: Per the City’s Landfill Master Plan, the City’s landfill has adequate capacity to accommodate construction related and operational solid waste disposal for this project.

| | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| g. Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The project will comply with all federal, state, and local solid waste regulations.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

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|---|--------------------------|--------------------------|-------------------------------------|--------------------------|
| 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 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|-------------------------------------|--------------------------|

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|---|---|---|----------------------|
| Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|----------------------|

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?

Discussion: As noted within this environmental document, and with the mitigation measures outlined in the document, the projects future development impacts related to habitat for wildlife species (San Joaquin Kit Fox) will be less than significant with mitigation incorporated. There will be no impacts to fish habitat or impacts to fish and wildlife populations. The site is currently used for agricultural crop production and cattle grazing, and there are no protected plants or animal species on the site. Therefore, impacts to fish, wildlife, or plant habitat is less than significant.

- 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)?
- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: The extension of Wisteria Lane for the future connection to Airport Road is a connection of road identified in the City’s Circulation Element as an important connection that will provide a parallel route to Highway 46 East, by providing improved automobile, transit, pedestrian, and bike connection between the downtown and the Airport, which will reduce trips on Highway 46 East. The Wisteria Lane connection is a major City-wide benefit, whereby this project will be dedicating land for the road alignment to Airport Road, and construct a portion of the road. In this case, since the project will be providing a key parallel roadway route for the City, the result of the development of this project would not be individually limited, or cumulatively considerable.

- c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?
- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion: As noted within this environmental document, and with the mitigation measures outlined in the document, the project’s potential to cause what may be considered substantial, adverse effects on human beings either directly or indirectly is negligible. Therefore, the project will not cause substantial adverse effects on human beings, either directly or indirectly.

EARLIER ANALYSIS AND BACKGROUND MATERIALS.

Earlier analyses may be used where, pursuant to tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D).

Earlier Documents Prepared and Utilized in this Analysis and Background / Explanatory Materials

| <u>Reference #</u> | <u>Document Title</u> | <u>Available for Review at:</u> |
|---------------------------|---|---|
| 1 | City of Paso Robles General Plan | City of Paso Robles Community Development Department 1000 Spring Street Paso Robles, CA 93446 |
| 2 | City of Paso Robles Zoning Code | Same as above |
| 3 | City of Paso Robles Environmental Impact Report for General Plan Update | Same as above |
| 4 | 2007 Airport Land Use Plan | Same as above |
| 5 | City of Paso Robles Municipal Code | Same as above |
| 6 | City of Paso Robles Water Master Plan | Same as above |
| 7 | City of Paso Robles Urban Water Management Plan 2005 | Same as above |
| 8 | City of Paso Robles Sewer Master Plan | Same as above |
| 9 | City of Paso Robles Housing Element | Same as above |
| 10 | City of Paso Robles Standard Conditions of Approval for New Development | Same as above |
| 11 | San Luis Obispo County Air Pollution Control District Guidelines for Impact Thresholds | APCD 3433 Roberto Court San Luis Obispo, CA 93401 |
| 12 | San Luis Obispo County – Land Use Element | San Luis Obispo County Department of Planning County Government Center San Luis Obispo, CA 93408 |
| 13 | USDA, Soils Conservation Service, Soil Survey of San Luis Obispo County, Paso Robles Area, 1983 | Soil Conservation Offices Paso Robles, Ca 93446 |

Attachments:

- 1. Mitigation Monitoring & Reporting**
- 2. Vicinity Map**
- 3. Project Description**
- 4. Vesting Tentative Tract Map 3069**
- 5. Existing Zoning & Land Use Designations Exhibit**
- 6. Proposed Zoning & Land Use Designations Exhibit**
- 7. Airport Land Use Plan Exhibit**
- 8. Biological Report**
- 9. SJKF Evaluation April 2016**
- 10. SJKF Hab Eval 2015 VT Tract 3069**
- 11. Arborist Report**
- 12. Phase I Archeological Survey**
- 13. Water Supply Evaluation**
- 14. Transportation Impact Analysis**
- 15. Transportation Impact Analysis Appendix**

Mitigation Monitoring and Reporting Plan

Project File No./Name: GPA 14-001, RZ 14-001, VTM 3069, OTR 14-010 – Erskine/Justin GPA (East end of Wisteria Ln.)
 Approving Resolution No.: Resolution No. 16-XXX by: Planning Commission City Council Date:

The following environmental mitigation measures were either incorporated into the approved plans or were incorporated into the conditions of approval. Each and every mitigation measure listed below has been found by the approving body indicated above to lessen the level of environmental impact of the project to a level of non-significance. A completed and signed checklist for each mitigation measure indicates that it has been completed.

Explanation of Headings:

Type: Project, ongoing, cumulative
 Monitoring Department or Agency: Department or Agency responsible for monitoring a particular mitigation measure
 Shown on Plans: When a mitigation measure is shown on the plans, this column will be initialed and dated.
 Verified Implementation: When a mitigation measure has been implemented, this column will be initialed and dated.
 Remarks: Area for describing status of ongoing mitigation measure, or for other information.

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|---|---------|----------------------------------|----------------|-------------------------|--|
| AQ-1. Future development will need to be evaluated to determine if there will be potential future project-related air quality impacts with the development of each lot. | Project | Qualified Air Quality Specialist | | | Evaluate during the development review process for each lot. |
| BR-1. The canopy edge and trunk location of oak trees within 50 feet of proposed construction on the Property shall be surveyed by a licensed land surveyor and placed on all plan sets. Tree assessments should be conducted by a certified arborist or qualified botanist. Data collected for the tree shall include diameter at breast height (4.5 feet) of each stem/trunk, canopy diameter, tree height, tree health, and habitat notes (cavities for birds or bats), raptor nests, wood rat nests, and unique features. The tree map shall be used to determine impacts to trees from the project and will inform the mitigation plan. | Project | Qualified Biologist CDD | | | Prior to issuance of grading permit |
| BR-2. Impacts to the oak canopy or critical root zones (CRZ) should be avoided where practicable. Impacts include pruning, ground disturbance within the CRZ, and trunk damage. | Project | Qualified Biologist CDD | | | Prior to issuance of grading permit |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|--|----------|---------------------------------|----------------|--|--|
| BR-3. Prior to ground breaking, tree protection fencing shall be installed as close to the outer limit of the CRZ as practicable for construction operations. The fencing shall be in place throughout the duration of the project, and removed only under the direction of the project environmental monitor or arborist, while demolition is in progress. | On-going | CDD | | | Prior to issuance of grading permit |
| BR-4. Trenching within the CRZ must be approved by the project arborist, and shall be done by hand or with an air spade. Any roots exposed by demolition shall be treated by a tree care specialist and covered with a layer of soil to match existing topography. | On-going | CDD | | | Prior to issuance of grading permit |
| BR-5. Landscape material within the CRZ must be of native, drought tolerant species. Lawns are prohibited within the CRZ. | On-going | CDD | | | Prior to issuance of grading permit |
| BR-6. Paving adjacent to and within the CRZ shall utilize interlocking pavers or equivalent that will allow proper infiltration of water and exchange of oxygen to the root zone of the tree. | On-going | CDD | | | Prior to issuance of grading permit |
| BR-7. Tree removal, if approved, shall commence within 30 days of inspection by a qualified biologist to determine the tree is not being used by nesting birds or bats at the time of removal. | Project | CDD | | | Prior to issuing Certificate of Occupancy permit |
| BR-8. Impacts to oak trees shall be assessed by a licensed arborist or qualified botanist prior to final inspection, and reported to the County. | Project | Certified Arborist CDD | | | Prior to issuing grading permit |
| BR-8. Impacts to oak trees shall be assessed by a licensed arborist or qualified botanist prior to final inspection, and reported to the County. | On-going | Certified Arborist CDD | | Notes shown on construction documents. | Prior to issuing grading permit. |
| BR-10. Replacement trees should be seasonally maintained (browse protection, weed reduction and irrigation, as needed) and monitored annually for at least 7 years. Replacement trees shall be the same species as the tree impacted or removed, and of local origin. | On-going | CDD | | Notes shown on construction documents. | Prior to issuing grading permit. |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|--|---------|---------------------------------|----------------|--|--|
| <p>BR-11. Within one week of ground disturbance or tree removal/trimming activities, if work occurs between March 15 and August 15, nesting bird surveys shall be conducted. To avoid impacts to nesting birds, grading and construction activities that affect trees and grasslands shall not be conducted during the breeding season from March 1 to August 31. If construction activities must be conducted during this period, nesting bird surveys shall take place within one week of habitat disturbance. If surveys do not locate nesting birds, construction activities may be conducted. If nesting birds are located, no construction activities shall occur within 100 feet of nests until chicks are fledged. Construction activities shall observe a 300-foot buffer for active raptor nests. A preconstruction survey report shall be submitted to the lead agency immediately upon completion of the survey. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements. A map of the Project site and nest locations shall be included with the report. The Project biologist conducting the nesting survey shall have the authority to reduce or increase the recommended buffer depending upon site conditions.</p> | Project | CDD | | Notes shown on construction documents. | Prior to issuing Building Permit. |
| <p>BR-12. A focused preconstruction survey for legless lizards shall be conducted in proposed work areas immediately prior to ground-breaking activities that would affect potentially suitable habitat, as determined by the project biologist. The preconstruction survey shall be conducted by a qualified biologist familiar with legless lizard ecology and survey methods, and with approval from California Department of Fish and Game to relocate legless lizards out of harm's way. The scope of the survey shall be determined by a qualified biologist and shall be sufficient to determine presence or absence in the project areas. If the focused survey results are negative, a letter report shall be submitted to the County, and no further action shall be required. If legless lizards are found to be present in the proposed work areas the following steps shall be taken:</p> <ul style="list-style-type: none"> • Legless lizards shall be captured by hand by the project biologist and relocated to an appropriate location well | Project | CDD | | | Prior to issuing Certificate of Occupancy permit |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|---|----------|---------------------------------|----------------|---------------------------------|--|
| <p>outside the project areas.</p> <ul style="list-style-type: none"> Construction monitoring shall be required for all new ground-breaking activities located within legless lizard habitat. Construction monitors shall capture and relocate horned lizards as specified above. A letter report shall be submitted to the County and CDFW within 30 days of legless lizard relocation, or as directed by CDFW. | | | | | |
| <p>BR-13. Occupied nests of special status bird species shall be mapped using GPS or survey equipment. Work shall not be allowed within a 100 foot buffer for songbirds and 300 for nesting raptors while the nest is in use. The buffer zone shall be delineated on the ground with orange construction fencing where it overlaps work areas.</p> | Project | CDD | | | Prior to site disturbance, grading permit issued |
| <p>BR-14. Occupied nests of special status bird species that are within 100 feet of project work areas shall be monitored at least every two weeks through the nesting season to document nest success and check for project compliance with buffer zones. Once burrows or nests are deemed inactive and/or chicks have fledged and are no longer dependent on the nest, work may commence in these areas.</p> | On-going | Certified Arborist CDD | | Shown on construction documents | Prior to issuance of grading permit |
| | | | | | |
| <p>BR-15. A preconstruction survey shall be conducted within thirty days of beginning work on the site to identify if badgers are using the site. The results of the survey shall be sent to the project manager and the County of San Luis Obispo. If the preconstruction survey finds potential badger dens, they shall be inspected to determine whether they are occupied. The survey shall cover the entire property, and shall examine both old and new dens. If potential badger dens are too long to completely inspect from the entrance, a fiber optic scope shall be used to examine the den to the end. Inactive dens may be excavated by hand with a shovel to prevent re-use of dens during construction. If badgers are found in dens on the property between February and July, nursing young may be</p> | On-going | Certified Arborist CDD | | Shown on construction documents | Prior to issuance of building permit |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|--|---------|---------------------------------|----------------|-------------------------|--------------------------------------|
| <p>present. To avoid disturbance and the possibility of direct take of adults and nursing young, and to prevent badgers from becoming trapped in burrows during construction activity, no grading shall occur within 100 feet of active badger dens between February and July. Between July 1st and February 1st all potential badger dens shall be inspected to determine if badgers are present. During the winter badgers do not truly hibernate, but are inactive and asleep in their dens for several days at a time. Because they can be torpid during the winter, they are vulnerable to disturbances that may collapse their dens before they rouse and emerge. Therefore, surveys shall be conducted for badger dens throughout the year. If badger dens are found on the property during the pre-construction survey, the CDFW wildlife biologist for the area shall be contacted to review current allowable management practices</p> | | | | | |
| <p>BR-16. Prior to removal of any trees over 20 inches DBH, a survey shall be conducted by a qualified biologist to determine if any of the trees proposed for removal or trimming harbor sensitive bat species or maternal bat colonies. If a non-maternal roost is found, the qualified biologist, with prior approval from California Department of Fish and Game, will install one-way valves or other appropriate passive relocation method. For each occupied roost removed, one bat box shall be installed in similar habitat and should have similar cavity or crevices properties to those which are removed, including access, ventilation, dimensions, height above ground, and thermal conditions. Maternal bat colonies may not be disturbed.</p> | Project | Certified Arborist CDD | | | Prior to issuance of Final Occupancy |
| <p>BR-17. Prior to issuance of grading and/or construction permits, the applicant shall submit evidence to the City of Paso Robles, Community Development Department (City) that states that one or a combination of the following three San Joaquin kit fox mitigation measures has been implemented:</p> | Project | CDD | | | Prior to issuance of grading permit. |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|---|------|---------------------------------|----------------|-------------------------|----------------|
| <p>a. Provide for the protection in perpetuity, through acquisition of fee or a conservation easement of 111.68 acres of suitable habitat in the kit fox corridor area (e.g. within the San Luis Obispo County kit fox habitat area, northwest of Highway 58), either on-site or off-site, and provide for a non-wasting endowment to provide for management and monitoring of the property in perpetuity. Lands to be conserved shall be subject to the review and approval of the California Department of Fish and Wildlife (Department) and the City.</p> <p>This mitigation alternative (a.) requires that all aspects of this program must be in place before City permit issuance or initiation of any ground disturbing activities.</p> <p>b. Deposit funds into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the kit fox corridor area within San Luis Obispo County, and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.</p> <p>Mitigation alternative (b) above, can be completed by providing funds to The Nature Conservancy (TNC) pursuant to the Voluntary Fee-Based Compensatory Mitigation Program (Program). The Program was established in agreement between the Department and TNC to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The fee, payable to "The Nature Conservancy", would total \$279,200. This fee is calculated based on the current cost-per-unit of \$2,500 per acre of mitigation, which is scheduled to be adjusted to address the increasing cost of property in San Luis Obispo County; your actual cost may increase depending on the timing of payment. This fee must be paid after the Department provides written notification about your mitigation options but prior to City permit issuance and initiation of any ground disturbing activities.</p> <p>c. Purchase 111.68 credits in a Department-approved conservation bank, which would provide for the protection in perpetuity of suitable habitat within the kit fox corridor</p> | | | | | |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|---|----------|---------------------------------|----------------|-------------------------|---|
| <p>area and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.</p> <p>Mitigation alternative (c) above, can be completed by purchasing credits from the Palo Prieto Conservation Bank. The Palo Prieto Conservation Bank was established to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The cost for purchasing credits is payable to the owners of The Palo Prieto Conservation Bank, and would total \$279,200. This fee is calculated based on the current cost- per-credit of \$2500 per acre of mitigation. The fee is established by the conservation bank owner and may change at any time. Your actual cost may increase depending on the timing of payment. Purchase of credits must be completed prior to City permit issuance and initiation of any ground disturbing activities.</p> | | | | | |
| <p>BR-18. Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the City. The retained biologist shall perform the following monitoring activities:</p> <ul style="list-style-type: none"> o Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction, the biologist shall conduct a pre- activity (i.e. preconstruction) survey for known or potential kit fox dens and submit a letter to the City reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed), as applicable, to address any kit fox activity within the project limits. o The qualified biologist shall conduct weekly site visits during site-disturbance activities (i.e. grading, diking, excavation, stock piling of dirt or gravel, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BR-19 through BR-28. Site disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason (see BR-19iii). When weekly monitoring is | On-going | CDD | | | Prior to issuance of certificate of occupancy |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|--|------|---------------------------------|----------------|-------------------------|----------------|
| <p>required, the biologist shall submit weekly monitoring reports to the City.</p> <ul style="list-style-type: none"> o Prior to or during project activities, if any observations are made of San Joaquin Kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. harm or death) to kit fox. At the time a den is discovered, the qualified biologist shall contact USFWS and the CDFW for guidance on possible additional kit fox protection measures to implement and whether or not a Federal and/or State incidental take permit is needed. If a potential den is encountered during construction, work shall stop until such time the USFWS determines it is appropriate to resume work. <p>If incidental take of kit fox during project activities is possible, before project activities commence, the applicant must consult with the USFWS. The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.</p> <ul style="list-style-type: none"> i. In addition, the qualified biologist shall implement the following measures: <ul style="list-style-type: none"> 1. Within 30 days prior to initiation of site disturbance and/or construction, fenced exclusion zones shall be established around all known and potential kit fox dens. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of the following distance measured outward from the den or burrow entrances: <ul style="list-style-type: none"> ▪ Potential kit fox den: 50 feet | | | | | |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|--|----------|---------------------------------|----------------|-------------------------|---|
| <ul style="list-style-type: none"> ▪ Known or active kit fox den: 100 feet ▪ Kit fox pupping den: 150 feet <p>2. All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.</p> <p>3. If kit foxes or known or potential kit fox dens are found on site, daily monitoring by a qualified biologist shall be required during ground disturbing activities.</p> | | | | | |
| <p>BR-19. Prior to issuance of grading and/or construction permits, the applicant shall clearly delineate the following as a note on the project plans: "<i>Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox</i>". Speed limit signs shall be installed on the project site within 30 days prior to initiation of site disturbance and/or construction.</p> | On-going | CDD | | | Prior to issuance of certificate of occupancy |
| <p>BR-20. During the site disturbance and/or construction phase, grading and construction activities after dusk shall be prohibited unless coordinated through the City, during which additional kit fox mitigation measures may be required.</p> | On-going | CDD | | | |
| <p>BR-21. Prior to issuance of grading and/or construction permit and within 30 days prior to initiation of site disturbance and/or construction, all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox's life history, all mitigation measures specified by the City, as well as any related biological report(s) prepared for the project. The applicant shall notify the City shortly prior to this meeting. A kit fox fact sheet shall also be developed prior</p> | On-going | CDD | | | |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|---|---------|---------------------------------|----------------|-------------------------|-----------------------------------|
| to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project. | | | | | |
| BR-22. During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavations, steep-walled holes and trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped kit fox. Any kit fox so discovered shall be allowed to escape before field activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded. | Project | CDD | | | Prior to certificate of occupancy |
| BR-23. During the site-disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved. If necessary, the pipe may be moved only once to remove it from the path of activity, until the kit fox has escaped. | Project | CDD | | | Prior to certificate of occupancy |
| BR-24. During the site-disturbance and/or construction phase, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of only in closed containers. These containers shall be regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed. | Project | CDD | | | Prior to certificate of occupancy |
| BR-25. Prior to, during and after the site-disturbance and/or construction phase, use of pesticides or herbicides shall be in compliance with all local, State and Federal regulations. This is necessary to minimize the probability of primary or secondary | Project | CDD | | | Prior to certificate of occupancy |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|--|------|---------------------------------------|----------------|----------------------------|----------------|
| poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend. | | | | | |
| BR-26. During the site-disturbance and/or construction phase, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and City. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the USFWS and CDFW by telephone. In addition, formal notification shall be provided in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to CDFW for care, analysis, or disposition. | | | | | |
| BR-27. Prior to final inspection, or occupancy, whichever comes first, should any long internal or perimeter fencing be proposed or installed, the applicant shall do the following to provide for kit fox passage: i. If a wire strand/pole design is used, the lowest strand shall be no closer to the ground than 12 inches. ii. If a more solid wire mesh fence is used, 8" x 12" openings near the ground shall be provided every 100 yards. Upon fence installation, the applicant shall notify the City to verify proper installation. Any fencing constructed after issuance of a final permit shall follow the above guidelines | | | | | |
| HYD-1: Recycled Water. The project shall use recycled water when it becomes available for landscape irrigation and agricultural purposes. | | | | | |
| HYD-2: Well Metering. All on- and off-site wells permitted for use with this project shall have well meters installed per Public Works standards prior to recordation of the first subdivision map. | | | | | |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|---|------|---------------------------------|----------------|-------------------------|----------------|
| <p>T-1: Concurrent with recordation of the first phase of Tract 3069 map, the project will dedicate a 100 ft right-of-way for the Connection Road from Wisteria Lane to Airport Road consistent with the Vesting Tentative Tract Map Attachment 4, and additional right or way as necessary to accommodate a new intersection of the Connection Road to Airport Road consistent with exhibit XX.</p> | | | | | |
| <p>T-2: With the development of Tract 3069 install a new two-lane divided arterial street improvements as shown on the Vesting Tentative Tract Map, Attachment 4.</p> | | | | | |
| <p>T-3: Traffic Impact Fees shall be paid at time of occupancy for all new structures built within the project area.</p> | | | | | |
| <p>T-4: Concurrent with phase 1 subdivision improvements, Wisteria Lane will be striped and signed to establish Class II bike lanes from Golden Hill Road to the Connection Road.</p> | | | | | |
| <p>T-5: Concurrent with phase 1 subdivision improvements the Connection Road will be striped and signed with Class II bike lanes.</p> | | | | | |
| <p>CR-1: The applicant should retain the services of a qualified archaeologist to determine whether impacts to JVW-1, -2, or -3 will occur as a result of the activities proposed as part of the project modifications.</p> | | | | | |
| <p>CR-2: If the archaeologist demonstrates that direct impacts will result due to project modifications, a Phase II archaeological investigation should be conducted by a professional archaeologist to evaluate the eligibility of those portions of the archaeological deposits subject to impact for inclusion in the CRHR.</p> | | | | | |
| | | | | | |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|---|------|---------------------------------------|----------------|----------------------------|----------------|
| <p>CR-3: If that portion of the archaeological deposit is eligible for the CRHR, then the project should be modified to avoid impacting that portion. If impact avoidance is not feasible, a Phase III data recovery investigation should be conducted by a professional archaeologist to offset the loss of scientific data that will result from the disturbance of the deposit.</p> | | | | | |
| <p>CR-4: For each investigation conducted pursuant to these recommendations (e.g., Phase II and Phase III), a report should be prepared to document the methods, analysis, and findings of the study. The report(s) would include Department of Parks and Recreation 523 update forms, to be filed with the CCIC.</p> | | | | | |
| <p>CR-5: Step Nos. 1-4, above, should be implemented whenever a project modification results in proposed activities that would encroach on the 100-foot radius around JVW-1, -2, or -3.</p> | | | | | |
| <p>CR-6: An Extended Phase I subsurface survey should be conducted by a qualified archaeologist to determine whether subsurface deposits associated with the isolated artifact are within proposed disturbance areas. If subsurface archaeological deposits are identified as a result of the Extended Phase I study, Phase II or Phase III excavation may be required.</p> | | | | | |
| <p>CR-7: In addition to the site-specific measure provided above, and given the overall heightened sensitivity of the project area for the presence of archaeological cultural resources, it is recommended that prior to the issuance of a grading permit, an Archaeological Monitoring Plan (AMP) be developed for those areas of the project subjected to ground disturbance.</p> | | | | | |
| <p>CR-8: If deposits of prehistoric or historical archaeological materials are encountered during project activities, all work within 25 feet of the discovery should be redirected, and a qualified archaeologist should be contacted to assess the</p> | | | | | |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|--|------|---------------------------------------|----------------|----------------------------|----------------|
| situation, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. The project proponent should also be notified. Project personnel should not collect or move any archaeological materials or human remains and associated materials. | | | | | |
| <p>CR-9: Impacts to archaeological deposits should be avoided by project activities. If such deposits cannot be avoided, they should be evaluated for their CRHR eligibility, under the direction of a qualified professional archaeologist, to determine if they qualify as a historical resource under CEQA.</p> <p>If the deposit is not eligible, a determination should be made as to whether it qualifies as a "unique archaeological resource" under CEQA. If the deposit is neither a historical nor unique archaeological resource, avoidance is not necessary. If the deposit is eligible for the CRHR, or is a unique archaeological resource, it will need to be avoided by project actions that may result in impacts, or such impacts must be mitigated. Mitigation may consist of, but is not limited to, recording the resource; recovery and analysis of archaeological deposits; preparation of a report of findings; and accessioning recovered archaeological materials at an appropriate curation facility. Public educational outreach may also be appropriate.</p> | | | | | |
| <p>CR-10: Upon completion of the assessment, the archaeologist should prepare a report documenting the methods and results of the investigation, and provide recommendations for the treatment of the archaeological materials discovered. The report should be submitted to the client and the CCIC.</p> | | | | | |
| <p>CR-11: Prehistoric materials can include flaked-stone tools (e.g., projectile points, knives, or choppers) or obsidian, chert, basalt, or quartzite tool-making debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone milling equipment (e.g., mortars, pestles, or handstones). Prehistoric sites often contain human remains. Historical materials can include wood, stone, concrete, or adobe footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood,</p> | | | | | |

| Mitigation Measure GPA/RZ 14-001, PD 15-005, VTM 3069, OTR 14-010 (Erskine-Justin GPA) | Type | Monitoring Department or Agency | Shown on Plans | Verified Implementation | Timing/Remarks |
|--|------|---------------------------------|----------------|-------------------------|----------------|
| glass, ceramics, metal, and other refuse. | | | | | |
| CR-12: If human remains are encountered during project activities, work within 25 feet of the discovery should be redirected and the San Luis Obispo County Coroner notified immediately. At the same time, an archaeologist should be contacted to assess the situation and consult with agencies as appropriate. The project proponent should also be notified. Project personnel should not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner must notify the NAHC within 24 hours of this identification. The NAHC will identify a Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. | | | | | |
| CR-13: Upon completion of the assessment, the archaeologist should prepare a report documenting the methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the Most Likely Descendent. The report should be submitted to the County of San Luis Obispo and the CCIC. | | | | | |
| | | | | | |
| | | | | | |

(add additional measures as necessary)

Explanation of Headings:

Type: Project, ongoing, cumulative

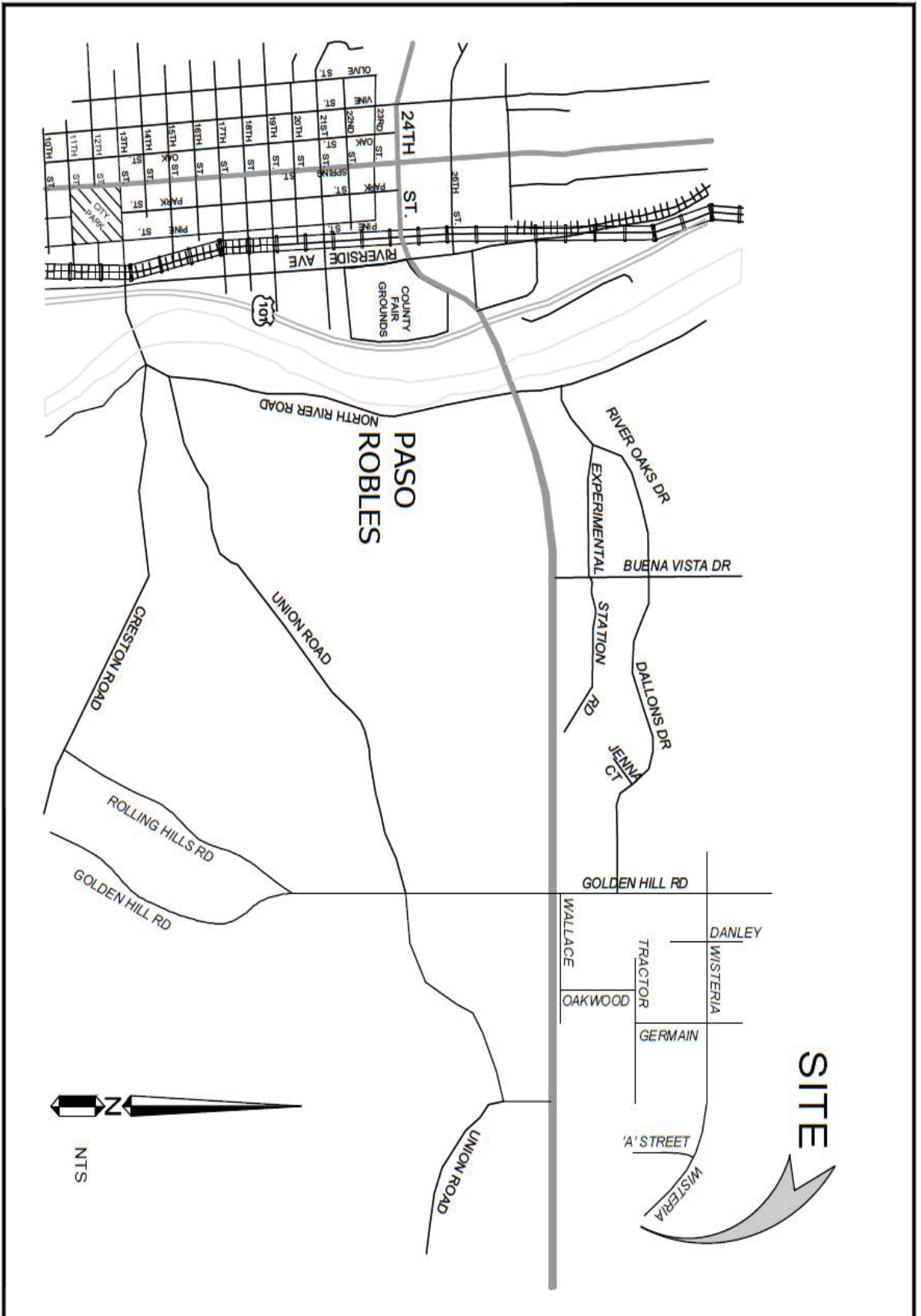
Monitoring Department or Agency: Department or Agency responsible for monitoring a particular mitigation measure

Shown on Plans: When a mitigation measure is shown on the plans, this column will be initialed and dated.

Verified Implementation: When a mitigation measure has been implemented, this column will be initialed and dated.

Remarks: Area for describing status of ongoing mitigation measure, or for other information.

VICINITY MAP





**RANCH COAST PROPERTIES INC. AND ERKSINE PROPERTY TRUST
GENERAL PLAN AMENDMENT AND 13 LOT VESTING TENTATIVE TRACT MAP
WISTERIA LANE, PASO ROBLES, CA 93446
APNs 025-435-029, 030, 031
*Updated February 2016***

GENERAL DESCRIPTION

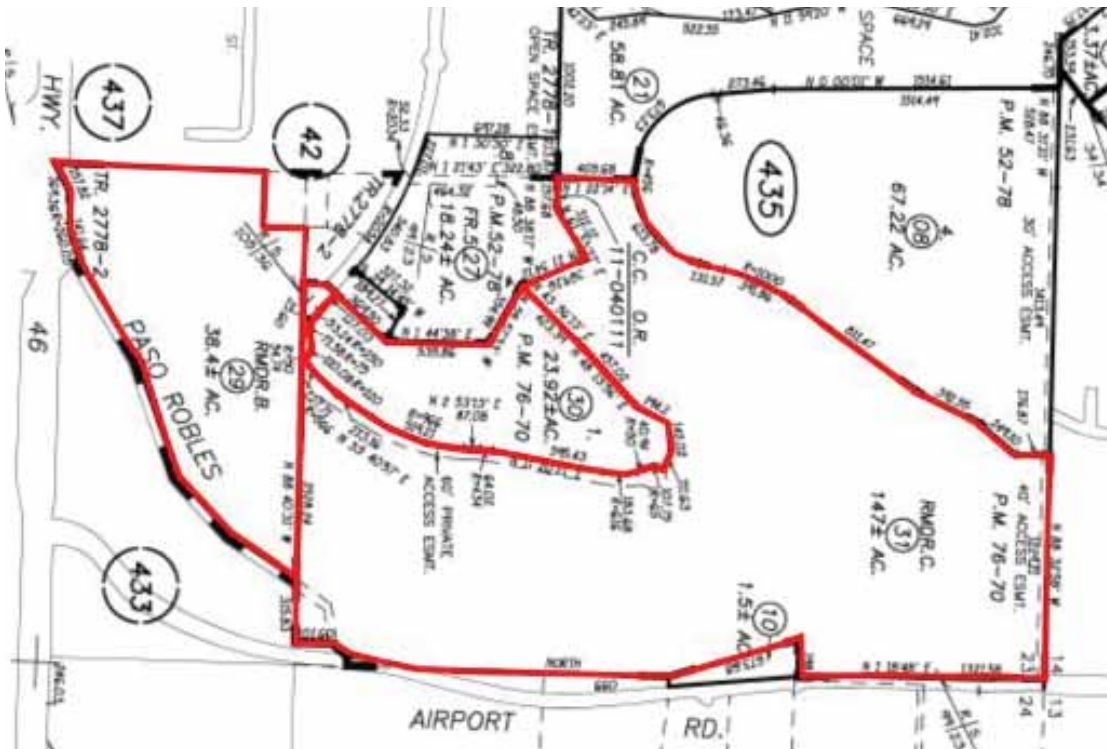
The following application includes a General Plan Amendment / Zoning Map Amendment, and 13 Lot Vesting Tentative Tract Map. The proposal is to subdivide 3 existing parcels, APNs 025-435-029, 030, 031, into 13 lots and one remainder parcel. The application also includes a General Plan Amendment / Zoning Map Amendment, to re-designate the land use category for 12 of the 13 parcels in the proposed subdivision and three lots located in Tract 2778. No specific plans for use of the building sites on the individual lots are proposed at this time.

The site is located at the eastern end of Wisteria Lane in the City of Paso Robles, CA. It is currently accessed from Hwy 46 East, to Golden Hill Road (northern section) and onto Wisteria Lane. This is currently the only access. The City has slated future access to this site in the City's General Plan, Circulation Element. The Golden Hill Business Park and Lowe's shopping center is located to the west, the Ravine Water Park to the southeast, and agriculture land and single family residences to the east and north. The site has multiple land use designations (Planned Industrial, Residential Agriculture and Parks and Open Space) and is subject to the City of Paso Robles Airport Land Use Plan Safety Zone's 2-4.

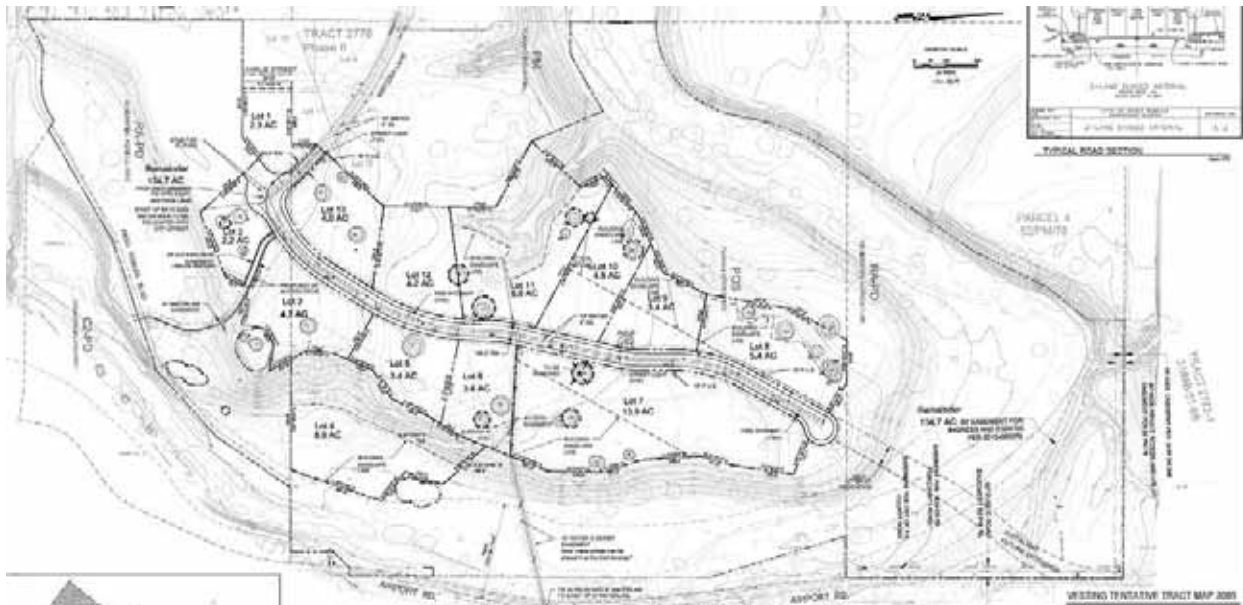
Vesting Tentative Tract Map

This application includes the subdivision of the three existing parcels on Wisteria Lane to create 13 parcels ranging in size from +/-2 acres to 13 acres and one remainder parcel of 134.0 acres. The resulting parcels are consistent with the lotting pattern of the surrounding land uses such as the Golden Hill Business Park and other commercial lots that are being developed in the area. The parcels have been sited in gently sloping areas that can easily accommodate future commercial development with minimal impacts to the environment. Building envelopes have been identified on the tentative map to ensure sensitive resources, such as oak trees, cultural sites and steeper slopes are retained and not impacted by future development.

EXISTING PARCEL MAP 025-435-029, 030, 031



PROPOSED VESTING TENTATIVE TRACT MAP 3069



The map includes a 2-lane arterial access road which will be improved through the project site terminating at a cul-de-sac at the eastern edge of Lot 7 and Lot 8. An offer of dedication is being provided as part of the project extending from the cul-de-sac to the southeastern edge of the property. The offer of dedication is intended to facilitate a future connection to Airport Road consistent with the General Plan's Circulation Element. This subdivision recognizes the City's future plans and has been designed to accommodate them.



General Plan Amendment

The application is requesting the following amendments to the City of Paso Robles General Plan Land Use Designations for future uses:

- Lots 9-11 (Tract 2778): Business Park to Commercial Services
- Lot 1: Ag/Parks and Open Space to Commercial Services
- Lots 2: Ag to Commercial Services
- Lots 3: Ag / Parks and Open Space to Business Park
- Lots 5-12: Parks and Open Space to Business Park
- Lot 13: Ag / Parks and Open Space to Business Park
- Remainder Parcel and Lot 4 : No changes are proposed

Rezone Amendment

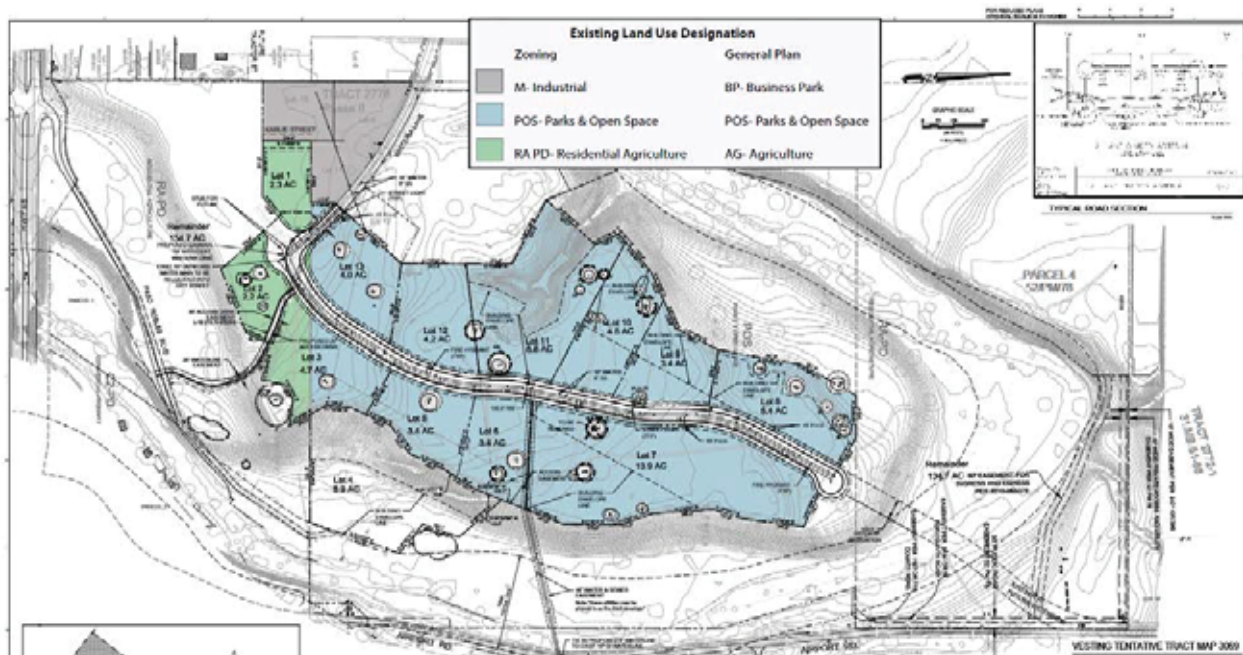
This portion of the application includes the rezoning of the following subdivided lots for future uses: (existing to proposed)

- Lots 9-11 (Tract 2778): Industrial to Commercial Light Industry (C3)
- Lots 1-2: Residential Agriculture Planned Development (RA) to Commercial Light Industry (C3)

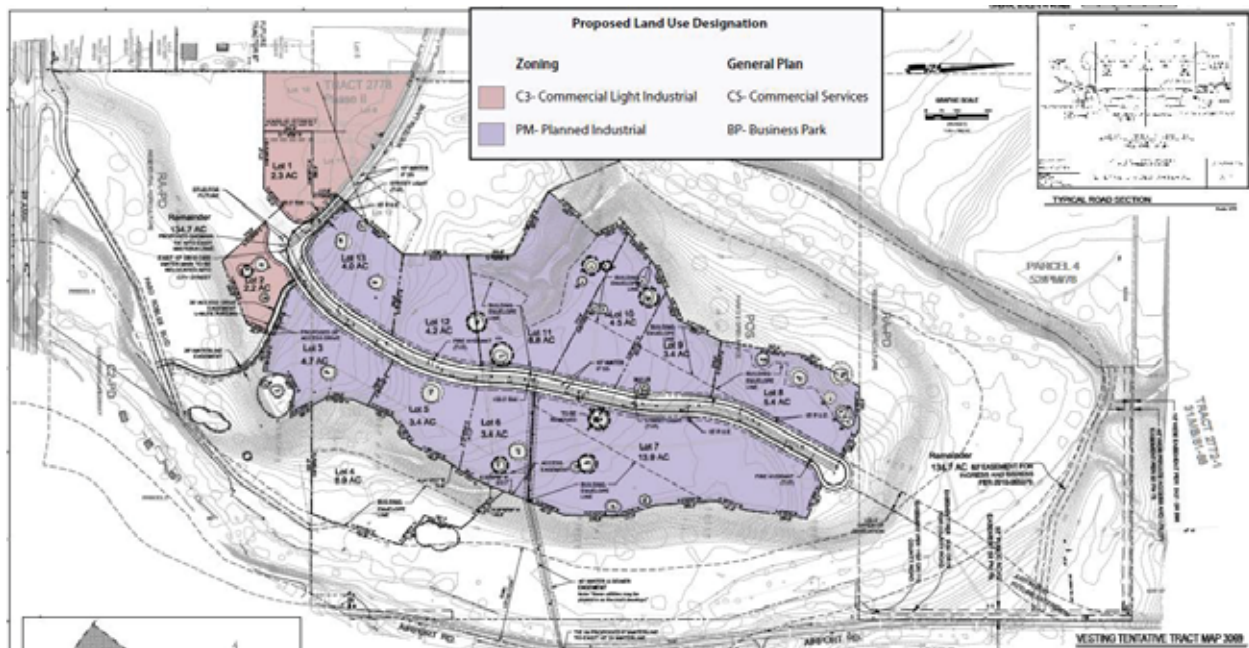
- Lots 3: Residential Ag Planned Development (RA) / Parks and Open Space (POS) to Planned Industrial (PM)
- Lots 5-12: Parks and Open Space (POS) to Planned Industrial (PM)
- Lot 13: Residential Agriculture Planned Development (RA) / Parks and Open Space (POS) to Planned Industrial (PM)
- Remainder Parcel and Lot 4 : No changes are proposed

Amending the General Plan and Zoning designations of these parcels will allow for future land uses that are consistent with the existing development pattern in the surrounding area and on Wisteria Lane. Further, the Planned Industrial and Commercial Services zoning categories will provide an economic benefit to the City and its residents as it will create the opportunity for increased commercial and employment growth within the City Limits. Additionally, the project will facilitate a future arterial road connection to Airport Road, consistent with the City's Circulation Element.

EXISTING ZONING



PROPOSED ZONING



Airport Land Use Plan

The property is located in close proximity to the Paso Robles Municipal Airport and within the Airport Influence Area. Safety Zones 2-4 overlie the property and a portion of the property is located within a runway extension area. Each safety zone sets forth use restrictions and density limitations which place thresholds on the type and intensity of future development and the runway extension area has a use limitation which prohibits structures, congregations of equipment or vehicles, or public venues within 250 feet of the extended runway centerline (Zone 2). Build-out scenarios consistent with the ALUP density limitation were analyzed and are provided with the application.

Based on the current safety zone density limitations, ultimate build-out of the project could provide up to +/- 440,000 sf of Planned Industrial (Industrial Park) development and +/- 183,200 sf of Commercial Services (Light Industrial) development. In order to ensure full disclosure is provided during the environmental review process, the development scenario included in the General Plan Amendment / Zoning Amendment application anticipates the maximum build-out scenario allowed under the ALUP. These assumptions were analyzed with the resource studies prepared for the project. Building limit lines have been identified on lots 7-10 to ensure structures and uses are not located within the runway setback limitations outlined in Table 5 of the ALUP.

TABLE 5: MAXIMUM ALLOWABLE NONRESIDENTIAL LAND USE DENSITIES AND MINIMUM REQUIRED OPEN SPACE

| Airport Safety Area | Maximum Land Use Density (persons/acre) | Maximum Single Acre Land Use Density (persons/acre) | Minimum Percent Open Space (% gross area) |
|---|--|--|--|
| Airport Property | n/a | n/a | n/a |
| Zone 1 - Runway Protection Zones | 0 | 0 | 100 |
| Zone 2 - Inner Approach/Departure Zones | 20 | 40 | 30 ¹ |
| Zone 3 - Turning and Sideline Zones | 60 | 120 | 25 ² |
| Zone 4 - Outer Approach/Departure Zones | 40 | 120 | 20 ² |
| Zones 5 and 6 | 150 | 450 | 10 |

1. No structures, congregations of equipment or vehicles, or public venues shall be located within 250 feet of any extended runway centerline and within 6000 feet of the corresponding runway end.
 2. When feasible, development should be planned in a manner that maintains maximum open space within 50 feet of any extended runway centerline.

ENVIRONMENTAL IMPACTS

BIOLOGICAL

The project site is currently vacant. A Biological Assessment and a Kit Fox Evaluation was conducted for the project site. The Biological Assessment includes a series of mitigation measures to ensure implementation of the project will not have an adverse impact to biological resources that may occur on the project site. A Kit Fox Evaluation was conducted on the property and concluded that 53.4 acres of Kit Fox habitat may be affected by the project. The Kit Fox Evaluation resulted in a score of 65 points which requires that Kit Fox habitat loss be mitigated at a 2:1 ratio. The owner is planning to mitigate the kit fox habitat conversion by participation in an approved in lieu fee program which will provide for the protection in perpetuity of suitable habitat within the kit fox corridor located within San Luis Obispo County.

It is anticipated that the mitigation measures and recommendations included in the report will be incorporated into the CEQA document and future conditions of approval.

TREE MITIGATION

A&T Arborists have provided recommendations to protect trees onsite both during the design phase and construction of the project site. As the land has historically been used for grazing, there are very few trees on the site that are less than 40 years old. The oak trees on the property have been rendered potentially hazardous for any development within about 50 feet from the trunk; therefore, all development will avoid the critical root zones (CRZ). The radius of this circle, in feet, is equal to the diameter, in inches, of the tree. Any changes or work done near or on the CRZ will receive project arborist's review and implementation for potential

mitigation measures before any said changes or construction proceeds. If the mitigation measures described by the arborists are followed, there will be minimal long-term significant impacts to the native trees.

The Tentative Tract Map of this project will eventually include the development of a new roadway to provide easier access to the subdivided parcels. An inventory of the oak trees on site revealed that trees #20-22 would need to be removed due to their location on the edge of the road. The project has since been revised to adjust the roadway in order to retain the three healthy trees and instead tree 19 will be required to be removed. Tree 19 was determined to be in poor health by the project arborist. As specific future uses have not yet been designated for the project site, no other trees will be negatively impacted at this time. Please refer to the attached arborist report and map.

TRAFFIC

Wisteria Lane is an east-west, two-lane roadway in northern Paso Robles. It provides access to the Golden Hill Business Park and also serves as a private road to a small number of residences. There is no signed speed limit, but based on observations, vehicular travel speeds are upward of 30 mph. There is no transit service provided in the vicinity of the project site; the nearest being at the corner of Dallons Drive and Buena Vista Drive. The roadway width of Wisteria Lane, 48 feet wide, provides sufficient room for vehicles and cyclists to travel in the same direction parallel to each other. Sidewalks are present along Wisteria Lane.

Specific uses of the property have not yet been designated, however assumptions for potential land uses and development were anticipated based on proposed land use designation change and Airport Land Use density thresholds (refer to Land Use Matrix table included in this application). This information was utilized to evaluate the potential impacts for existing, existing plus project, and cumulative scenarios.

Based on the land use development assumptions, it is anticipated that the project could develop +/- 183,200sf of Commercial Service (Light Industrial) uses and +/- 440,000 sf of Planned Industrial (Industrial Park) uses. Traffic trips associated with these assumptions would yield a total of 4,452 daily traffic trips (614 am peak trips and 603 pm peak hour trips). The traffic study analyzed how these added trips would affect existing plus project, near term and cumulative circulation. The analysis evaluated the Wisteria Lane/Golden Hill Rd intersection, Dallons Drive/Golden Hill Rd and State Route 46E/Golden Hill Rd intersections.

Existing conditions revealed no deficiencies. All of the existing intersections operation at a LOS C or better. Existing Plus Project conditions noted deficiencies at the Wisteria Lane/Golden Hill Rd intersection where a queuing issue is reported. This deficiency could be improved with the installation of a dedicated northbound right turn lane at the intersection of Wisteria

Lane/Golden Hill Rd. Near term conditions with project added trips, would impact the Wisteria Lane/Golden Hill intersection.

The traffic engineer provided options to mitigate by:

- Adding a dedicated northbound right hand turn lane (same as described in Existing Plus Project conditions)
- Connect project site to SR 46E via Paso Robles Boulevard extension
- Single lane roundabout
- Traffic signal

The applicant's position is to install a traffic signal at the Wisteria Lane/Golden Hill intersection.

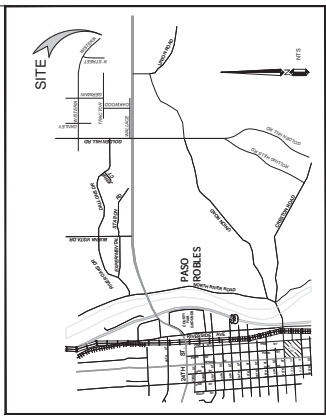
Cumulative conditions noted deficiencies at the three study intersections. Implementing parallel local routes, funded via payment through the City's traffic fee program will provide mitigation as well as the project's offer of dedication to extend Paso Robles Boulevard will also provide a mechanism to improve the City's parallel local routes and implement the City's future routes noted in the Circulation Element. The mitigations described for the Wisteria Lane/Golden Hill intersection would also apply to Cumulative conditions. The Dallons Drive/Golden Hill intersection would require installation of a traffic signal or roundabout to provide acceptable operations.

CULTURAL STUDY

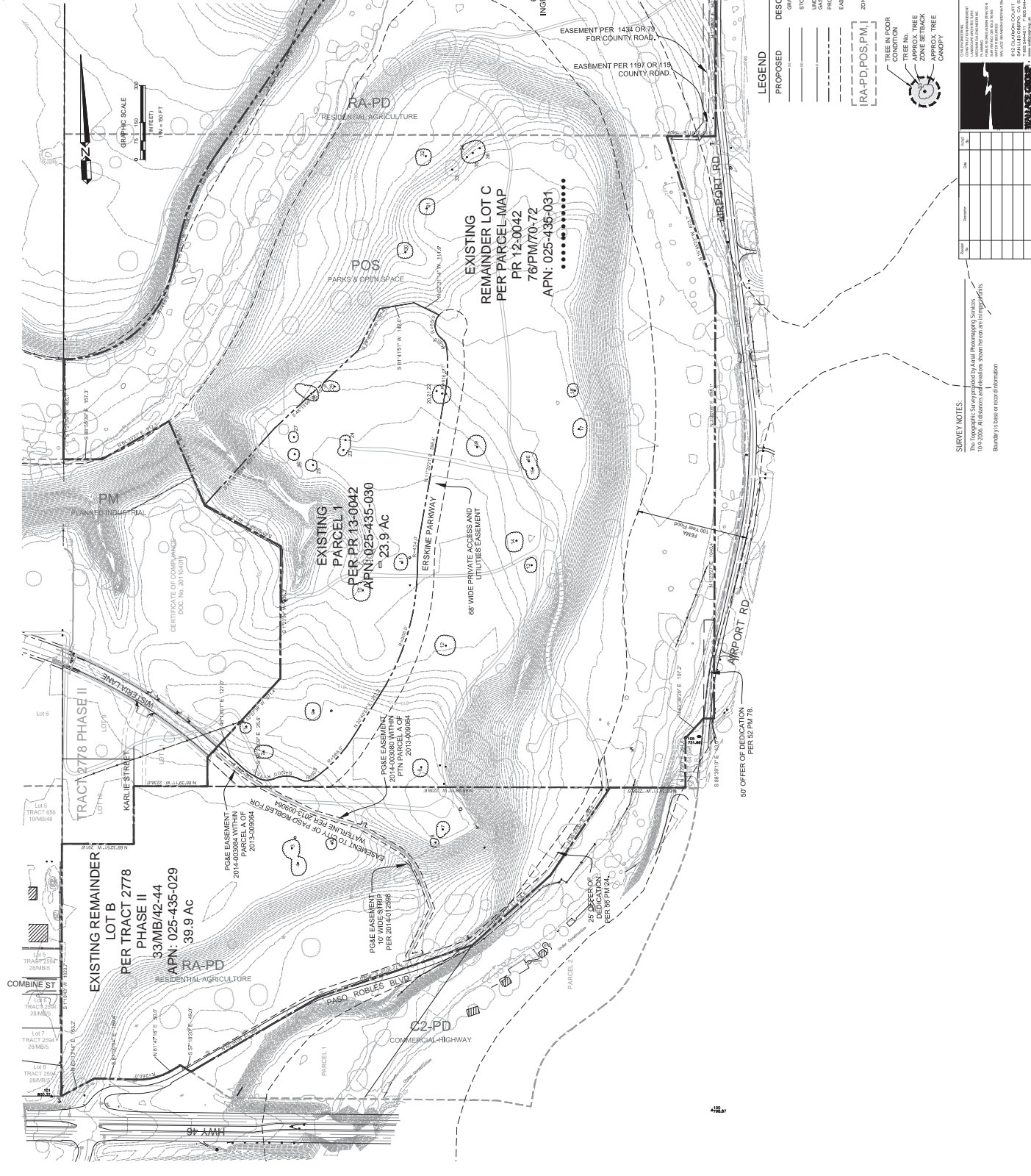
The Central Coast Information Center search results did not identify any previously documented cultural resources within the project area and within a 0.5 mile radius. The Native American Heritage Commission Program declared that the Sacred Land File did not indicate the presence of Native American cultural resources in the project area. Historic Debris were not considered on the site due to their lack of potential to qualify as historical or unique archaeological under CEQA. A low density lithic debitage and tool scattering measure was found near proposed lot 3 and lot 4. The lots and building envelopes have been designed to avoid these areas. Please refer to the copy of the Phase I Archeological Assessment provided with this application.

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 1 2



VICINITY MAP



LEGEND

| PROPOSED | DESCRIPTION |
|----------|---|
| (Symbol) | GRAVITY SEWERLINE |
| (Symbol) | STORM DRAIN |
| (Symbol) | UNDERGROUND |
| (Symbol) | PROPERTY RIGHT OF WAY LINE |
| (Symbol) | EASEMENT |
| (Symbol) | ZONING DELINEATION |
| (Symbol) | TREE IN POOR CONDITION |
| (Symbol) | TREE NO. TREE ZONE SETBACK APPROX. TREE CANDY |

VESTING TENTATIVE TRACT MAP 3069

RESCIND (N)
THE STATE OF CALIFORNIA, COUNTY OF SAN DIEGO, COUNTY CLERK, DO NOT RECORDE THIS TRACT MAP 3069 UNTIL THE REMAINDER OF THE TRACT MAP 3069 IS RECORDED.
OWNER: [Name]
APN: 025-435-031
P.O. Box 1310, San Diego, CA 92101-0130
(Per Tax Records)
APN: 025-435-030
11441 W. Olympic Blvd., Suite 100, Los Angeles, CA 90048-1549
© 2008

VESTING TENTATIVE TRACT 3069

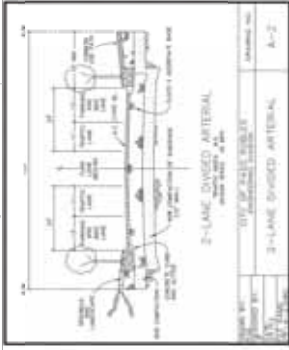
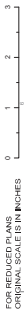
| | | | |
|------|-------------|------------|------------|
| DATE | APPROVED BY | CHECKED BY | RECORD NO. |
| DATE | DATE | DATE | DATE |



| | | |
|-----|----------|-------------|
| NO. | DATE | DESCRIPTION |
| 1 | 11/11/11 | PRELIMINARY |
| 2 | 11/11/11 | FINAL |

SURVEY NOTES:
This topographic survey prepared by Wallace Group, Inc. is based on a 1:2500 scale. All distances and bearings shown hereon are in metric units. Boundary is based on record information.

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



DATE: N/A

TRACT 2772-1
31/MB/81-88

10' WIDE EASEMENT PER 2431 OR 396

40' WIDE PRIVATE ACCESS AND UTILITY
EASEMENT PER 52 PM 78

VESTING TENTATIVE TRACT MAP 3069

DESCRIPTION OF EASEMENTS TO PER TRACT 178 PARCEL 5
33MB/84.4 AND PARCEL 1 AND REMAINDER LOT C PER PER 13.902

OWNER:
THOMAS H. ENRIKS (E)
Barbra A. Conell Properties Inc
P.O. Box 150
2444 W. Olympic Blvd, Suite 100
Los Angeles, CA 90004-1500
CO-OWNER

PREPARED BY:
JAMES J. WOODWARD
P.O. Box 150
2444 W. Olympic Blvd, Suite 100
Los Angeles, CA 90004-1500
CO-OWNER

APN: 025-45-030
1344 W. Olympic Blvd, Suite 100
Los Angeles, CA 90004-1500
CO-OWNER

LEGEND

| PROPOSED | DESCRIPTION |
|----------|--------------------|
| (Symbol) | GRAVITY SEWER LINE |
| (Symbol) | STORM DRAIN |
| (Symbol) | UNDERGROUND |
| (Symbol) | PROPERTY BOUNDARY |
| (Symbol) | EASEMENT |
| (Symbol) | ZONING DELINEATION |

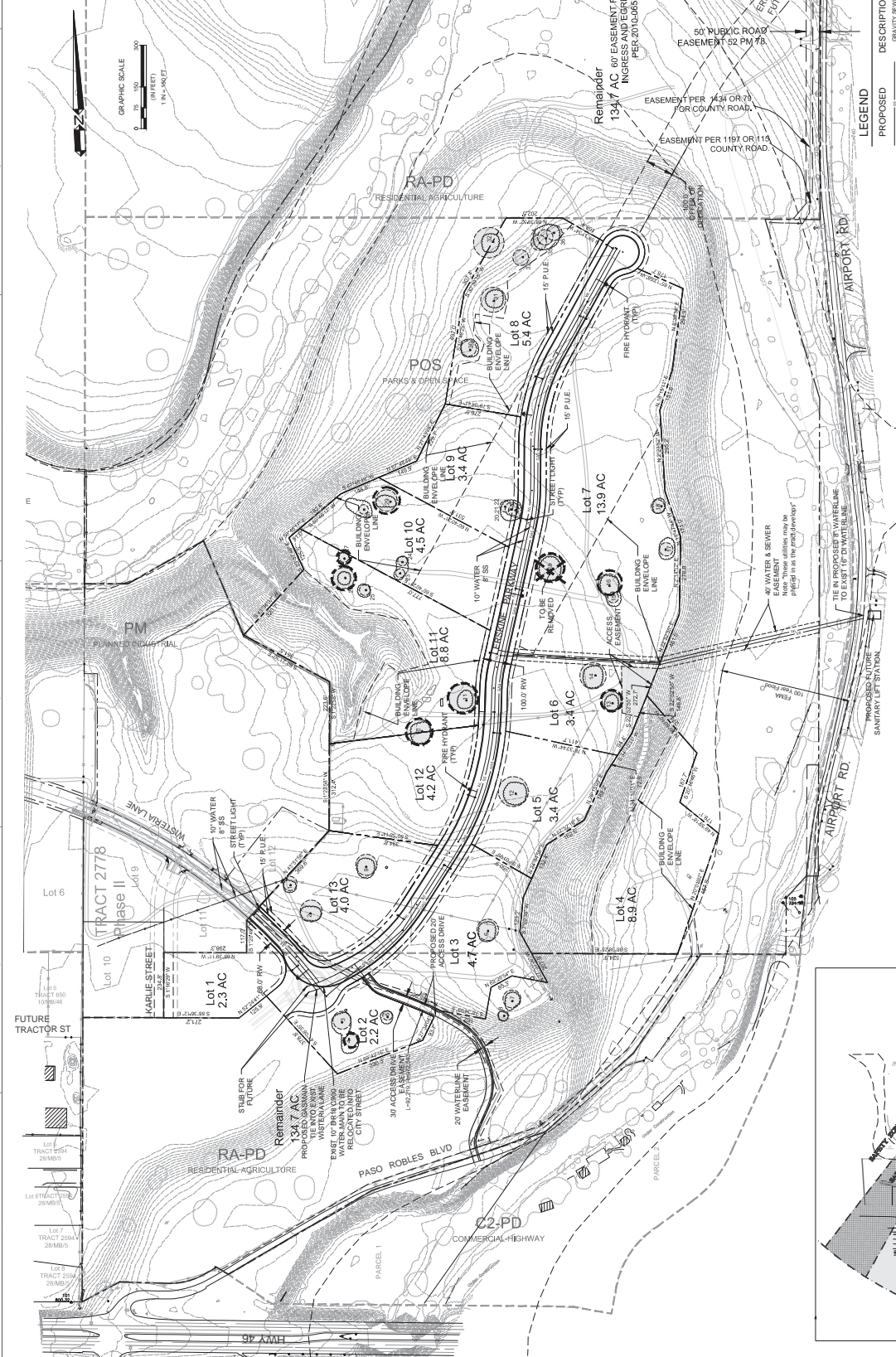
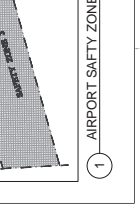
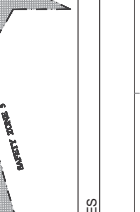
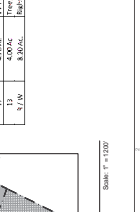
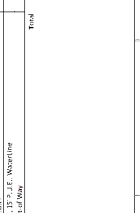
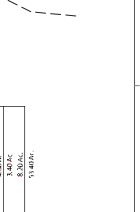
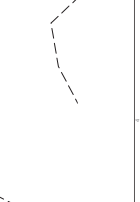
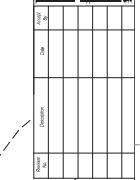
[RA-PD POS, PM]

TREE IN POOR
CONDITION

TREE NO. [Symbol]
ZONE SETBACK
APPROX. TREE
CANOPY

VESTING TENTATIVE TRACT 3069

| | | | |
|-------------------------|--------------------------|--------------|--------|
| DATE: | APPROVED BY: | DATE: | SCALE: |
| DRAWN BY: JG | APPROVED BY: [Signature] | DATE: 2/2/23 | TM-2 |
| CHECKED BY: [Signature] | CITY ENGINEER: | COMPL. NO.: | 540-08 |
| RECORD INFO: | APPROVED BY: | DATE: | |



PROJECT SUMMARY

| Lot No. | Lot Size (Ac.) | Setbacks: Tree, Easement, Slope & or Cultural | Buildable Envelope Area |
|--------------|-----------------|---|-------------------------|
| 1 | 2.3 AC | 15' 2' 2" S.E.T. | 2,365 sq ft |
| 2 | 2.2 AC | 15' 2' 2" S.E.T. | 2,285 sq ft |
| 3 | 4.7 AC | 15' 2' 2" S.E.T. | 4,785 sq ft |
| 4 | 8.9 AC | 15' 2' 2" S.E.T. | 8,905 sq ft |
| 5 | 3.4 AC | 15' 2' 2" S.E.T. | 3,415 sq ft |
| 6 | 3.4 AC | 15' 2' 2" S.E.T. | 3,415 sq ft |
| 7 | 13.9 AC | 15' 2' 2" S.E.T. | 13,915 sq ft |
| 8 | 4.2 AC | 15' 2' 2" S.E.T. | 4,215 sq ft |
| 9 | 4.5 AC | 15' 2' 2" S.E.T. | 4,515 sq ft |
| 10 | 4.5 AC | 15' 2' 2" S.E.T. | 4,515 sq ft |
| 11 | 8.8 AC | 15' 2' 2" S.E.T. | 8,815 sq ft |
| 12 | 4.2 AC | 15' 2' 2" S.E.T. | 4,215 sq ft |
| 13 | 5.4 AC | 15' 2' 2" S.E.T. | 5,415 sq ft |
| REMAINDER | 134.7 AC | 15' 2' 2" S.E.T. | 1,347,000 sq ft |
| TOTAL | 177.0 AC | | 1,770,000 sq ft |



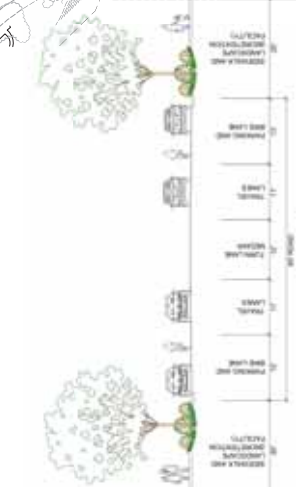
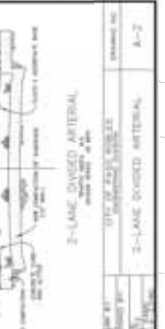
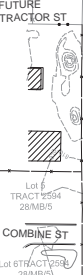
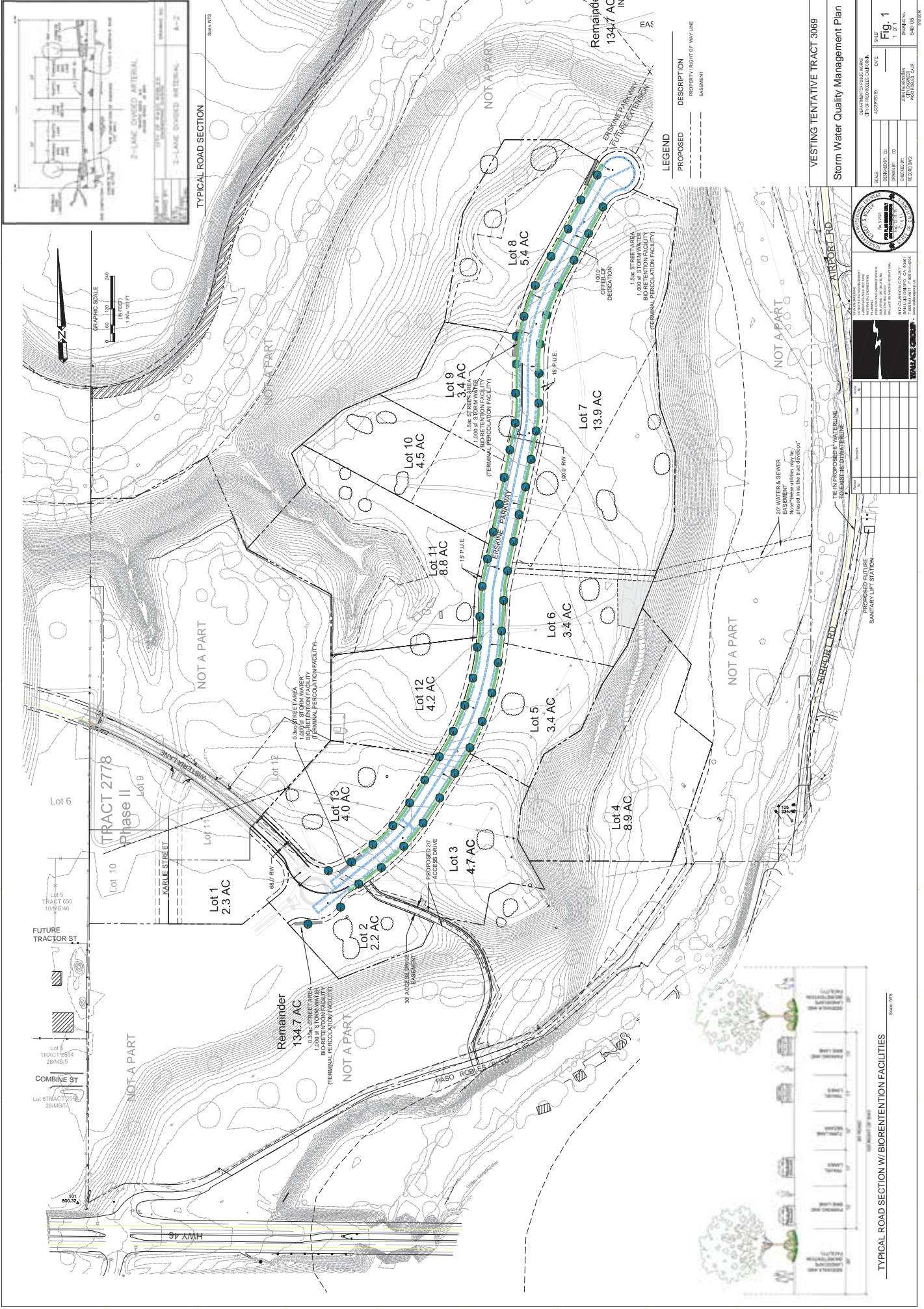
1 AIRPORT SAFETY ZONES

Scale: 1" = 150'

Application No. 1 - Part B.10

FOR REDUCED PLANS
ORIGINAL SCALES IN INCHES

0 1 2



| PROPOSED | DESCRIPTION |
|----------|----------------------------|
| --- | PROPERTY FRONT OF WAY LINE |
| --- | EASEMENT |

| | |
|--|----------------------|
| DEPARTMENT OF PUBLIC WORKS CITY OF PASADENA, CALIFORNIA | |
| DATE: _____ | SCALE: Fig. 1 |
| PROJECT NO: _____ | DATE: _____ |
| DESIGNED BY: _____ | CHECKED BY: _____ |
| DRAWN BY: _____ | DATE: _____ |
| RECORD NO: _____ | PROJECT NO: _____ |

VESTING TENTATIVE TRACT 3069
Storm Water Quality Management Plan

APPROVED BY THE CITY ENGINEER
 CITY OF PASADENA, CALIFORNIA
 DATE: _____

APPROVED BY THE CITY ENGINEER
 CITY OF PASADENA, CALIFORNIA
 DATE: _____

APPROVED BY THE CITY ENGINEER
 CITY OF PASADENA, CALIFORNIA
 DATE: _____

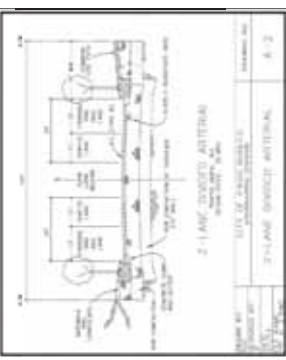
APPROVED BY THE CITY ENGINEER
 CITY OF PASADENA, CALIFORNIA
 DATE: _____

APPROVED BY THE CITY ENGINEER
 CITY OF PASADENA, CALIFORNIA
 DATE: _____

APPROVED BY THE CITY ENGINEER
 CITY OF PASADENA, CALIFORNIA
 DATE: _____

APPROVED BY THE CITY ENGINEER
 CITY OF PASADENA, CALIFORNIA
 DATE: _____

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



TYPICAL ROAD SECTION

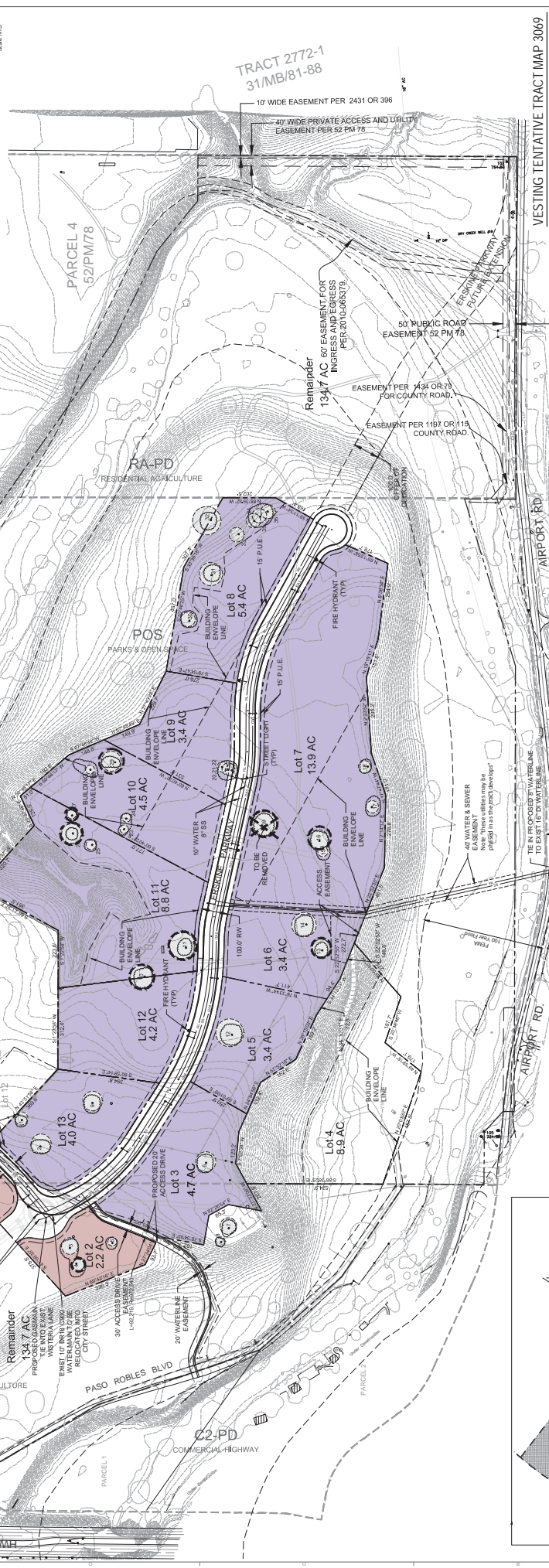
Proposed Land Use Designation

Zoning

- C3- Commercial Light Industrial
- PM- Planned Industrial

General Plan

- C5- Commercial Services
- BP- Business Park



DESCRIPTION
 VESTING TENTATIVE TRACT MAP 3069
 VESTING TENTATIVE TRACT 3069

OWNER:
 Thomas H. Evans (E)
 Barbara A. Coak Properties, Inc.
 P.O. Box 510
 Paso Robles, CA 92542-0510
 (P) 805 (Records)

APN: 025-45-030
 1347 AC, 1347 AC, 1347 AC
 Los Angeles, CA 90041-1549
 (C) COMMER

DATE: 2/2/2

RECORDING: 540-06

LEGEND

PROPOSED

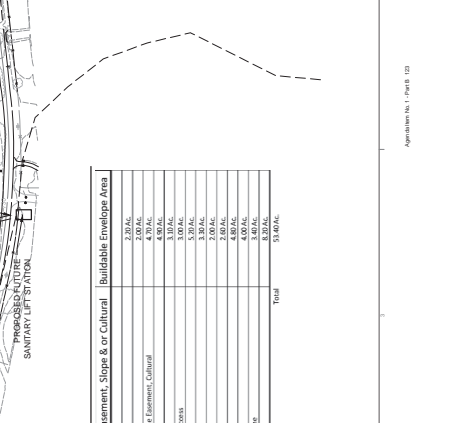
- GRAVITY SEWERLINE
- STORM DRAIN
- UNDERGROUND
- PROPERTY FRONT OF WAY LINE
- EASEMENT
- ZONING DELINEATION
- TREE IN POOR CONDITION
- TREE NO. TREE ZONE SETBACK APPROX. TREE CANOPY

DESCRIPTION

[RA-PD POS, PM]

PROJECT SUMMARY

| Lot No. | Lot Size (Ac.) | Setbacks: Tree, Easement, Slope, & or Cultural | Buildable Envelope Area |
|--------------|-----------------|--|-------------------------|
| 1 | 2.3 AC | 15' P.U.E. | 2,284 sq. ft. |
| 2 | 2.2 AC | 15' P.U.E. | 2,136 sq. ft. |
| 3 | 4.7 AC | Tree, 15' P.U.E., Wetland Easement, Cultural | 4,574 sq. ft. |
| 4 | 8.9 AC | Tree, Cultural | 4,592 sq. ft. |
| 5 | 3.4 AC | Tree, 15' P.U.E., Wetland Easement, Cultural | 3,302 sq. ft. |
| 6 | 3.4 AC | Tree, Utility, 15' P.U.E. Access | 3,302 sq. ft. |
| 7 | 13.9 AC | Tree, Utility, 15' P.U.E. | 13,302 sq. ft. |
| 8 | 8.8 AC | Tree, 15' P.U.E. | 8,402 sq. ft. |
| 9 | 4.5 AC | Tree, 15' P.U.E. | 4,302 sq. ft. |
| 10 | 4.5 AC | Tree, 15' P.U.E. | 4,302 sq. ft. |
| 11 | 8.8 AC | Tree, 15' P.U.E. | 8,402 sq. ft. |
| 12 | 4.2 AC | 15' P.U.E. | 4,002 sq. ft. |
| 13 | 4.0 AC | Tree, 15' P.U.E., Wetland | 3,802 sq. ft. |
| 14 | 4.0 AC | Tree, 15' P.U.E., Wetland | 3,802 sq. ft. |
| 15 | 13.9 AC | Tree, 15' P.U.E., Wetland | 13,302 sq. ft. |
| Total | 134.7 AC | | 51,804 sq. ft. |



APPROVED FOR PUBLIC WORKS
 CITY OF PASO ROBLES, CALIFORNIA

ACCEPTED BY: DATE

DESIGNED BY: DATE

CHECKED BY: DATE

RECORDING: DATE

PROJECT NO.: 540-06

DATE: 2/2/2

RECORDING: 540-06

Biological Report

for

Wisteria Lane Project

General Plan Amendment and Vesting Tentative Tract Map

Paso Robles, California



Prepared by

ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES
1602 Spring Street
Paso Robles, CA 93446
(805) 237-9626

August 2014

(Minor revisions 4-14-2016)

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Synopsis

- This Biological Report examines a 218-acre Study Area on a property located at Wisteria Lane, Paso Robles, California.
- The Applicant proposes development of an access road and lots for commercial use.
- Habitat types identified and mapped in the Study Area consist of cropland, oak woodland, oak savannah and riparian.
- Botanical surveys conducted in January, February, April, and May 2014 identified 102 species, subspecies, and varieties of vascular plants in the Study Area. Appropriate habitat and soil conditions are present for five special status plant species. Special status plant species were not detected in the Study Area in 2014.
- Wildlife species detected in the Study Area include 41 birds and 3 mammals. Appropriate habitat conditions are present in the Study Area for 16 special status animals. No state or federally listed animals have been detected in the Study Area.

1.0 Introduction

This report provides information regarding biological resources associated with an approximately 218-acre site (Study Area) in San Luis Obispo County. The Study Area consists of seven Assessor's parcels (APN 025-421-081, 025-421-082, 025-421-083, 025-421-084, 025-435-029, 025-435-030, 025-435-031) located at the eastern terminus of Wisteria Lane in Paso Robles. Results are reported for botanical and wildlife surveys of the Study Area conducted in January, February, April, and May 2014. A habitat inventory and results of database and literature searches of special status species reports within a seven 7.5-minute quadrangle search area of the Study Area are also included. Special status species that could occur in the Study Area or be affected by the proposed project are discussed, and lists of plant and animal species that were identified or are expected in the Study Area are provided.

We provide agencies and stakeholders with information regarding biological resources in the Study Area, and assess potential impacts to biological resources that could occur from the proposed project. An evaluation of the effect of the proposed project on biological resources is included, and mitigation measures are provided.

1.1 Project Location

The Study Area is located between Wisteria Lane, Paso Robles Boulevard, and Airport Road in the City of Paso Robles, San Luis Obispo County, California (Figures 1 and 2). The Study Area is approximately 218 acres in size, comprised of all or portions of seven parcels. Huerhuero Creek borders the Study Area to the northwest, bisects the northeast corner, and borders the Study Area on the east and southeast. Airport Road forms the northeast boundary of the Study Area and runs adjacent to Huerhuero Creek on the east. Paso Robles Boulevard borders the Study Area to the south. The Study Area is within Township 26S, Range 12E, Section 23. Approximate coordinates for the Study Area are N35° 39' 03" / W120° 38' 38" (WGS 84) in the Paso Robles United States Geological Survey (USGS) 7.5' topographic quad. The elevation ranges from approximately 720 to 840 feet above sea level.

1.2 Project Description

The proposed action is a General Plan Amendment and Vesting Tentative Tract Map. The proposal is to subdivide three existing parcels, APNs 025-435-029, 030, 031, into 17 lots. The application is also for a General Plan Amendment to rezone the parcels in the proposed subdivision and also for three lots located on Tract 2778. The application includes subdividing 3 existing parcels on Wisteria Lane to create 17 proposed lots. Lot sizes range from two to seven acres. No specific plans for use of the building site have been proposed at this time.

1.3 Responsible Parties

TABLE 1. RESPONSIBLE PARTIES. Applicant, biological consultant, applicant’s agent, property owner and lead agency are provided.

| Applicant’s Agent | Biological Consultant |
|---|---|
| <p>Kirk Consulting 8830 Morro Road Atascadero, CA 93423</p> <p>Contact: Jamie Kirk 805-461-5765</p> | <p>Althouse and Meade, Inc. 1602 Spring Street Paso Robles, CA 93446</p> <p>Contact: LynneDee Althouse (805) 237-9626</p> |
| Lead Agency | Property Owner |
| <p>City of El Paso de Robles Community Development Department Planning Division 1000 Spring Street Paso Robles, CA 93446 (805) 237-3970</p> | <p>Ranch and Coast Properties Inc. and Erskine Prop. Trust PO Box 510 Paso Robles, CA 93447</p> |

2.0 Methods

The Study Area was surveyed for biological resources on January 22, February 26, April 17, and May 20, 22, and 28, 2014. Althouse and Meade (A&M) Principal Scientists LynneDee Althouse and Dan Meade, and A&M Biologists Kyle Weichert, Curtis Brumit, and Jessica Griffiths conducted the surveys. Biological surveys were conducted on foot in order to compile species lists, to search for special status plants and animals, to map habitats, and to photograph the Study Area. The entire Study Area was surveyed.

Each habitat type occurring in the Study Area was inspected, described, and catalogued (Section 5.0). All plant and animal species observed in the Study Area were identified and recorded (Sections 6 and 7). Vegetation surveys consisted of meandering transects with an emphasis on locating habitat appropriate for special status plants. Transects were utilized to map boundaries of different vegetation types, describe general conditions and dominant species, compile species lists, and evaluate potential habitat for special status species.

Identification of botanical resources included field observations and laboratory analysis of collected material (Table 7). Botanical surveys were conducted in January, February, April and May 2014. Botanical nomenclature used in this document follows the Jepson Manual, Second Edition (Baldwin et al. 2012).

Wildlife documentation included observations of animal presence, nests, tracks, and other wildlife sign. Observations of wildlife were recorded during the field survey in all areas of the Study Area (Table 8). Birds were identified by sight or by vocalizations.

Maps were created by using data from the California Natural Diversity Database (CNDDDB) and overlaid on a 2012 NAIP aerial of San Luis Obispo County (USDA 2012).

We conducted a search of the CNDDDB (February 20, 2014 data) and the California Native Plant Society (CNPS) On-line Inventory of Rare and Endangered Plants of California for special status species known to occur in nine USGS 7.5-minute quadrangles surrounding the Study Area: Bradley, San Miguel, Ranchito Canyon, Adelaida, Paso Robles, Estrella, York Mountain, Templeton, and Creston.

Special status species lists produced by database and literature searches were cross-referenced with described habitat types to identify all potential special status species that could occur on or near the Study Area. Each special status species that could occur on or near the Study Area is individually discussed (refer to Sections 4.5 and 4.7).

TABLE 2. BIOLOGICAL SURVEYS. Biological survey dates, times, weather observations, and A&M Biologist(s) are provided.

| Survey Date | Start Time Stop Time | Temp. | Wind | Weather Observations | Biologist(s) |
|-------------|-------------------------|-------|----------|------------------------|--------------------------|
| 1/22/2014 | 830-1830 | 58-70 | 0-10 mph | Clear | C. Brumit |
| 2/26/2014 | 900-1200 | 55-60 | 5-15 mph | Cloudy | C. Brumit |
| 4/17/2014 | 1200-1700 | 60-70 | 5-10 mph | Clear | LD. Althouse D. Meade |
| 4/20/2014 | 645-1045 | 55-65 | 0 mph | Overcast, brief shower | J. Griffiths |
| 4/28/2014 | 715-845 | 65-70 | 0-5 mph | Mostly sunny | J. Griffiths |
| 4/29/2014 | 845-1130 | 75-85 | 0-5 mph | Clear | D. Meade |
| 5/1/2014 | 830-1230 | 75-95 | 0 mph | Hot, clear | D. Meade |
| 5/22/2014 | 840-1115 | 50-60 | 0 mph | Overcast, cool | K. Weichert |

3.0 Existing Conditions

3.1 Environmental Setting

The Study Area is located at the eastern terminus of Wisteria Lane in Paso Robles. Huerhuero Creek forms the northern and southeastern boundary of the Study Area, Airport Road forms the northeastern boundary, and Paso Robles Road borders it to the south. The Study Area is 218 acres, approximately 166 acres of which are cropland growing dry-farmed barley (*Hordeum vulgare*). Not all of the cropland is in production in any given year, but all of the cropland is plowed at least twice a year. The cropland is dotted with mature blue oak (*Quercus douglasii*) and valley oak (*Quercus lobata*). The portions of the cropland not in production are often grazed by cattle.

Near the center of the western boundary of the Study Area, there is an approximately 15-acre stand of oak woodland, comprised primarily of blue oaks with some coast live oaks. This oak woodland encompasses two ephemeral drainages that carry storm flow north into Huerhuero Creek. There is another strip of oak woodland on the north side of the Study Area which follows the contour of the creek, and several other stands of blue and valley oak trees scattered along the eastern side of the property on the east-facing slope of a ridge that runs the length of the property from north to south. Along this east-facing slope and between the small patches of oak woodland there is oak savannah, where annual grassland is dotted with oak trees.

Huerhuero Creek has seasonal flows in high rain fall years, and was dry during all site visits in 2014. The creek bed is wide, flat, and sandy, with low banks in most places. There are several large mature cottonwood trees in the portion of the creek channel which runs along the northwest boundary of the Study Area. There are many stumps along the creek channel from mature cottonwood trees that were recently cut down. Shrub cover occurs sparsely along the south banks in the northern portion of the property consisting of coyote bush, skunkbush, poison oak, and arroyo willow. Approximately 3.8 river miles downstream from the Study Area, the creek converges with the Salinas River.

Ranch roads cross the Study Area, connecting Wisteria Lane on the west side with Paso Robles Boulevard on the south and Airport Road on the east. Northeast of the large oak woodland there is a dirt clearing where trailers, trucks, and other equipment is stored. Northeast of this area is a small horse corral. There is a water tank on the hilltop south of the equipment clearing and horse corral.

The property to the northwest of the Study Area on the other side of Huerhuero Creek is currently being transformed into a horse event center with open pastures. Across the creek to the north and east, the Study Area is bordered by agricultural land. Paso Robles Municipal Airport is located half a mile to the northeast and light aircraft fly low over the Study Area during takeoff and landing. Ravine Waterpark is across the creek to the southeast, and to the south is a piece of private property which is being filled in above floodplain level. Commercial property borders the Study Area to the west.

3.2 Soils

The United States Department of Agriculture (USDA) SSURGO data (2007) and Soil Survey of San Luis Obispo County, California, Coastal Part (1984) and USDA SSURGO Data (Tabular data version 4, Spatial data version 1, 2008) delineate ten soil map units that intersect the Study

Area boundaries (Figure 3). The Study Area is mapped as primarily Arbuckle-San Ysidro complex (106), Arbuckle fine sandy loam (100), and Hanford and Greenfield gravelly sandy loam (149 and 150), with patches of Arbuckle-Positas complex (104 and 105), Elder loam (140), Metz loamy sand (166), Metz-Tujunga complex (167), and Xerofluvents-Riverwash association (212).

The soil survey was not meant to be applied at the acre-scale, but does indicate the soil map units in the vicinity of small properties. Below we discuss the details and properties of the soil types found in the Study Area (in order of area delineated in the Study Area).

Soil map units typically encompass one or two dominant soils that cover more than 50 percent of the mapped area, and one to several soils that occur in small patches not differentiated in mapping at the 1 to 24,000 scale used for NRCS soil maps. Due to the procedures followed in making a soil survey, users of soil survey data are cautioned that not all areas included within a soil survey are closely sampled using soil pits and site descriptions, and a specific site may not have been sampled at all. Therefore, care must be taken in drawing conclusions regarding site-specific soil resources based solely on NRCS soil survey work. Digitized spatial data from the Coastal Part Soil Survey are shown as an overlay of soil map units on an aerial photo of the region with the following caution from NRCS regarding maps: “Enlargement of these maps...could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.”

Arbuckle-San Ysidro complex, 2 to 9 percent slopes (106) is one of the dominant soil types and underlies the central portion of the grassland in the Study Area. It consists of approximately 40 percent Arbuckle fine sandy loam and 20 percent San Ysidro loam. Also included in this map unit are areas of Greenfield fine sandy loam, Hanford fine sandy loam, Cropley clay, Rincon clay loam, and Ryer clay loam. Arbuckle soil is a very deep, well-drained soil with a moderately slow permeability and a moderate to high available water capacity. San Ysidro soil is a very deep, moderately well drained soil with a very slow permeability and a moderate to high available water capacity. Both soils are derived from mixed rock alluvium. This complex is in capability units IIe-1 (14) irrigated, and IVe-1 (14) non-irrigated.

Arbuckle fine sandy loam, 0 to 2 percent slopes (100) underlies the southeastern third of the annual grassland in the Study Area, and is one of the dominant soil types. It is a very deep, nearly level, well-drained soil formed in alluvium derived from mixed rocks. Permeability of Arbuckle soils is moderately slow, and available water capacity is moderate to high. Surface runoff is slow and hazard of erosion is slight due to the gentle slopes. Included in this map unit are other mixed soil series and inclusions. This soil type has no limitations or hazards for farming and for building sites, roads, and streets. This Arbuckle soil is in soil capability class 1 irrigated and 4c non-irrigated.

Hanford and Greenfield gravelly sandy loams, 2 to 9 percent slopes (150) and 0 to 2 percent slopes (149) differ only in slope steepness. The Hanford and Greenfield gravelly and sandy loams with 2 to 9 percent slopes is one of the dominant soil types in the Study Area and underlies the northern third of the annual grassland in the Study Area, south of Huerhuero Creek. The Hanford and Greenfield gravelly and sandy loams with 0 to 2 percent slopes underlie a small portion of the Study Area along Paso Robles Boulevard. This complex consists of 40 percent Hanford gravelly sandy loam and 30 percent Greenfield gravelly sandy loam. Also included in this map unit are areas of Arbuckle fine sandy loam, San Ysidro loam, Cropley clay, Metz loamy

sand, Pico fine sandy loam, Rincon clay loam, and Tujunga fine sand. Both Hanford and Greenfield soils are derived from mixed rock alluvium, and are very deep and well drained soils. They both have a moderately rapid permeability, and a low to moderate available water capacity with a moderate erosion hazard. This complex is placed in capability units IIe-4 (14) irrigated, and IVe-4 (14) non-irrigated. This rating means that this soil type has moderate to very severe limitations for field crops (II, IV). These limitations are due to high erosion hazard (e), and sandy or gravelly textures that have low available water-holding capacity (4).

Arbuckle-Positas complex, 30 to 50 percent slopes (104) and 50 to 75 percent slopes (105) differ only in slope steepness. The Arbuckle-Positas complex with 30 to 50 percent slopes consists of steep soils that underlie between Huerhuero Creek and the central annual grassland. The Arbuckle-Positas complex with 50 to 75 percent slopes occurs under the oak woodland and ephemeral drainages between the winery and the creek. These Arbuckle-Positas complexes consist of approximately 40 percent Arbuckle fine sandy loam and 30 percent Positas coarse sandy loam, along with other mixed soil series and inclusions. Arbuckle soil is a very deep, well-drained soil with moderately slow permeability and moderate to high available water capacity. Positas soil is a very deep, well-drained soil with very slow permeability and moderate to high available water capacity. Both soils formed in alluvium derived from mixed rocks, and for both soils surface runoff is rapid and hazard of erosion is high. Erosion can be controlled by maintaining plant residue on the soil surface.

Metz loamy sand, 0 to 5 percent slopes (166) is found adjacent to Huerhuero Creek in the north and east parts of the Study Area. It is a very deep, nearly level to gently sloping somewhat excessively drained soil formed in alluvial fans or floodplains derived from mixed rocks. Flooding can occur rarely, although this soil does not typically hold standing water for long periods. Permeability is moderately rapid and available water capacity is low to moderate. Surface runoff is slow and hazard of erosion is slight. This soil has severe limitations for building sites, septic tank absorption fields, and roads and streets because of flood hazard. The land capability units are IIIs-4 (14) irrigated, and IVs-4 (14) non-irrigated. This rating means this soil type has severe to very severe limitations for field crops (III, IV). These limitations are because shallow, droughty, and stony soils (s), such as Metz, tend to have low available water holding capacity (4).

Xerofluents-Riverwash association (212) covers a small portion of the property and underlies Huerhuero Creek and its floodplain. The complex includes unnamed soils and barren areas on floodplains and consists of approximately 50 percent xerofluents and 30 percent riverwash, along with small areas of Elder loam, Metz loamy sand, and Tujunga fine sand. Xerofluents occur on the flood plains and generally flood twice every four years. Riverwash occurs in barren areas in and along stream channels, flooding annually. Permeability is variable and available water holding capacity is very low. Surface runoff is medium, and erosion hazard is very high. The land capability unit for this map unit is VIIIw (14), meaning these soils are not suited for crop production or building and are best left undisturbed.

Elder loam, flooded, 0 to 5 percent slopes (140) is located on the floodplain of Huerhuero Creek and covers a small portion of the total property. This very deep, moderately permeable soil formed in mixed rock alluvium. Surface runoff is slow, and erosion hazard is slight. This soil has severe limitations for buildings and roads due to the flood hazard. Elder soils used for these purposes need to be protected from flooding. Elder loam has a land capability class rating of IIw-2 (14) irrigated, and IVw-2 (14) non-irrigated. This rating means this soil type has moderate to very severe limitations for field crops (II, IV). Water in or on the soil interferes with plant growth (w) because the soil is either poorly drained or periodically flooded (2).

Metz-Tujunga complex, occasionally flooded, 0 to 5 percent slopes (167) underlies a small portion of the Study Area adjacent to Huerhuero Creek and just north of Highway 46. It is a very deep, nearly level to gently sloping, somewhat excessively drained soil formed in alluvial fans or floodplains derived from mixed rocks. Flooding occurs about twice every ten years. Permeability is moderately rapid and available water capacity is low to moderate. Surface runoff is slow and hazard of erosion is slight. This complex consists of about 40 percent Metz loamy sand and 35 percent Tujunga fine sand. Included with these soils are other sandy and loamy soils. The land capability class rating for this soil map unit is IVw-4 non-irrigated.

4.0 Special Status Species

The CNDDDB and the CNPS On-line Inventory of Rare and Endangered Plants of California contain records for 74 special status species and one sensitive natural community within the designated search area. The search area includes the following nine USGS 7.5-minute quadrangles that include and surround the Study Area: Bradley, San Miguel, Ranchito Canyon, Adelaida, Paso Robles, Estrella, York Mountain, Templeton, and Creston. Seven additional special status species were added to the list from our knowledge of the area. These species are marked with an asterisk (*). Because the search area is so large over varied terrain, species with very restricted habitat requirements far from the Study Area are often reported in the search results, but do not occur locally.

Appropriate habitat and soil conditions are present in the Study Area for 5 special status plants and 18 special status animals (Tables 3 and 4). No sensitive natural communities occur in the Study Area (Section 4.8). Figure 4 in Section 13.0 depict the current GIS data for special status species and critical habitat mapped in the vicinity of the Study Area by the CNDDDB and the U.S. Fish and Wildlife Service (USFWS). A Habitat Map indicating locations of habitat types and special status species detected on the Study Area in 2014 is provided in Section 11.0.

4.1 Introduction to California Rare Plant Ranks (Formerly CNPS Lists)

Plant species are considered rare when their distribution is confined to localized areas, when there is a threat to their habitat, when they are declining in abundance, or are threatened in a portion of their range. The California Rare Plant Rank (CRPR) categories range from species with a low threat (CRPR 4) to species that are presumed extinct (CRPR 1A). The plants of CRPR 1B are rare throughout their range. All but a few species are endemic to California. All of them are judged to be vulnerable under present circumstances, or to have a high potential for becoming vulnerable.

4.2 Introduction to CNDDDB Definitions

"Special Plants" is a broad term used to refer to all the plant taxa inventoried by the CNDDDB, regardless of their legal or protection status (CDFW April 2013). Special plants include vascular plants and high priority bryophytes (mosses, liverworts, and hornworts).

"Special Animals" is a general term that refers to all of the animal taxa inventoried by the CNDDDB, regardless of their legal or protection status (CDFG January 2011). The Special Animals list is also referred to by the California Department of Fish and Wildlife (CDFW), as the list of "species at risk" or "special status species". These taxa may be listed or proposed for listing under the California and/or Federal Endangered Species Acts, but they may also be species deemed biologically rare, restricted in range, declining in abundance, or otherwise vulnerable.

Each species included on the Special Animals list has a corresponding Global and State Rank (refer to Table 4). This ranking system utilizes a numbered hierarchy from one to five following the Global (G-rank) or State (S-rank) category. The threat level of the organism decreases with an increase in the rank number (1=Critically Imperiled, 5=Secure). In some cases where an uncertainty exists in the designation, a question mark (?) is placed after the rank. More information is available at www.natureserve.org.

Animals listed as California Species of Special Concern (SSC) may or may not be listed under California or Federal Endangered Species Acts. They are considered rare or declining in abundance in California. The Special Concern designation is intended to provide the Department of Fish and Wildlife, biologists, land planners and managers with lists of species that require special consideration during the planning process in order to avert continued population declines and potential costly listing under federal and state endangered species laws. For many species of birds, the primary emphasis is on the breeding population in California. For some species that do not breed in California but winter here, emphasis is on wintering range. The SSC designation thus may include a comment regarding the specific protection provided such as nesting or wintering.

Animals listed as Fully Protected are those species considered by CDFW as rare or faced with possible extinction. Most, but not all, have subsequently been listed under the California Endangered Species Act (CESA) or the Federal Endangered Species Act (FESA). Fully Protected species may not be taken or possessed at any time and no provision of the California Department of Fish and Game (CDFG) code authorizes the issuance of permits or licenses to take any Fully Protected species.

4.3 Potential Special Status Plant List

Table 3 lists 46 special status plant species reported from the region. Federal and California State status, global and State rank, and CNPS ranking status for each species are given. Typical blooming period, habitat preference, potential habitat on site, and whether or not the species was observed in the Study Area are also provided.

TABLE 3. SPECIAL STATUS PLANT LIST. Forty-six special status plant species reported from the vicinity of the Study Area or known from the region with potential to occur in Study Area are listed. Potentially suitable habitat is present in the Study Area for five special status plant species.

| | Common Name Scientific Name | Fed/State Status Global/State CRPR Rank | Blooming Period | Habitat Preference | Potential Habitat? | Detected in Study Area? | Effect of Activity |
|----|---|--|----------------------------|--|--|--|-------------------------------|
| 1. | Douglas' Fiddleneck <i>Amsinckia douglasiana</i> | None/None G3/None 4.2 | March – June | Unstable shaly sedimentary slopes; (100) 150–1600 m. SCoR, w WTR | No. Appropriate shaly soils are not present in the Study Area. | No | No Effect |
| 2. | Oval-leaved Snapdragon <i>Antirrhinum ovatum</i> | None/None G3/None 4.2 | May - November | Heavy, adobe-clay soils on gentle, open slopes, also disturbed areas; 200-1000 m. s SnJV, s SCoRI | No. Adobe-clay soils are not present in Study Area. | No | No Effect |
| 3. | Hoover's Manzanita <i>Arctostaphylos hooveri</i> | None/None G3/None 4.3 | February - April | Rocky slopes, upland chaparral, open ponderosa-pine forest near coast; 450-1100 m. SCoRO | No. Appropriate habitat is not present in Study Area. | No | No Effect |
| 4. | Bishop Manzanita <i>Arctostaphylos obispoensis</i> | None/None G3?/None 4.3 | February - March | Rocky, gen serpentine soils, chaparral, open close-cone forest near coast; 60-950 m; SCoRO | No. Appropriate habitat is not present in Study Area. | No | No Effect |
| 5. | Indian Valley Spineflower <i>Aristocapsa insignis</i> | None/None G2?/None 1B.2 | May - September | Foothill woodland; 300-600 m. SCoRI (Monterey, SLO Counties) | Yes. Woodland habitat with sandy soils is present in Study Area. | No | No Effect |
| 6. | Salinas Milk-vetch <i>Astragalus macrodon</i> | None/None G3/None 4.3 | April - July | Eroded pale shales or sandstone, or serpentine alluvium; 300-950 m. SCoR | No. Appropriate soils are not present in Study Area. | No | No Effect |
| 7. | Round-leaved Filaree <i>California macrophylla</i> | None/None G2/None 1B.1 | March - May | Clay soils in cismontane woodland, valley and foothill grassland; 15-1200 m. SeV, n SnJV, CW, SCo, n ChI | No. Clay soils are not present in the Study Area. | No | No Effect |

| | Common Name Scientific Name | Fed/State Status Global/State CRPR Rank | Blooming Period | Habitat Preference | Potential Habitat? | Detected in Study Area? | Effect of Activity |
|-----|--|---|---------------------|---|---|-------------------------------|-----------------------|
| 8. | Dwarf Calycadenia <i>Calycadenia villosa</i> | None/None G3/NONE 1B.1 | May - October | Dry, rocky hills, ridges, in chaparral, woodland, meadows and seeps; <1100 m. c&s SCoRO | No. Appropriate habitat is not present in Study Area. | No | No Effect |
| 9. | Santa Cruz Mountains Pussypaws <i>Calyptridium parryi</i> var. <i>hesseae</i> | None/None G3G4T2/NONE 1B.1 | May – August | Sandy or gravelly openings in chaparral and cismontane woodland. 700-1100 m. | No. Appropriate habitat is not present in Study Area. | No | No Effect |
| 10. | Hardham's Evening-Primrose <i>Camissoniopsis hardhamiae</i> | None/None G1Q/NONE 1B.2 | April - May | Decomposed carbonate soils, in chaparral, cismontane woodland. Monterey, SLO Counties | No. Appropriate habitat and soils are not present in Study Area. | No | No Effect |
| 11. | San Luis Obispo Owl's-clover <i>Castilleja densiflora</i> var. <i>obispoensis</i> | None/None G5T2/NONE 1B.2 | April | Coastal grassland, <100 m. Endemic to SLO County. | Yes. Grassland habitat could support this species. | No | No Effect |
| 12. | Lenmon's Jewelflower <i>Caulanthus lemmonii</i> | None/None G3/NONE 1B.2 | March – May | Dry, exposed slopes; grassland, chaparral, scrub; sw CnJV, se SnFB, e SCoRO, SCoRI. | No. Appropriate habitat is not present in the Study Area. | No | No Effect |
| 13. | Lompoc Ceanothus <i>Ceanothus cuneatus</i> var. <i>fascicularis</i> | None/None G5T3/NONE 4.2 | February - April | Chaparral on coastal sandy mesas; <400 m. s Cco | No. Appropriate habitat and soils are not present in Study Area. | No | No Effect |
| 14. | Santa Lucia Purple Amole <i>Chlorogalum purpureum</i> var. <i>purpureum</i> | FT/None G2T2/NONE 1B.1 | April - June | Cismontane woodland, valley and foothill grassland, often with blue oaks. 300-330 m. Monterey, SLO Counties | No. Appropriate grassland habitat is not present in the Study Area. | No | No Effect |

| | Common Name Scientific Name | Fed/State Status Global/State CRPR Rank | Blooming Period | Habitat Preference | Potential Habitat? | Detected in Study Area? | Effect of Activity |
|-----|---|--|----------------------------|--|--|--|-------------------------------|
| 15. | Douglas' Spineflower <i>Chorizanthe douglasii</i> | None/None G3/None 4.3 | April - July | Foothill woodland, pine forest, chaparral, sandy or gravelly soils; 200-1600 m. e SCoRO, SCoRI | Yes. Appropriate sandy soils and woodland habitat present in Study Area. | No | No Effect |
| 16. | Palmer's Spineflower <i>Chorizanthe palmeri</i> | None/None G3?/None 4.2 | May – August | Serpentine; 60-700m. SCoRO (w Monterey, w San Luis Obispo cos.) | No. Serpentine soils are not present in the Study Area. | No | No Effect |
| 17. | Straight-awned Spineflower <i>Chorizanthe rectispina</i> | None/None G1/None 1B.3 | May - July | Chaparral, dry woodland in sandy soil; 200-600 m. SCoRO | No. Appropriate chaparral habitat is not present in the Study Area. | No | No Effect |
| 18. | Monkey-flower Savory <i>Clinopodium mimulooides</i> | None/None G3/None 4.2 | June – October | Moist places, streambanks, chaparral, woodland; 400-1800 m. CCo, SCoRO, WTR, SnGb | No. Appropriate habitat not present in the Study Area. Study Area is too low in elevation. | No | No Effect |
| 19. | Small-flowered Morning-glory <i>Convolvulus simulans</i> | None/None G3/None 4.2 | April - June | Clay substrates, occ serpentine, ann grassland, coastal-sage scrub, chaparral; 30-875 m.; s SNF, SnFrB, s SCoRO, Sec, Chl, WTR, PR; AZ, Baja CA. | No. Appropriate clay or serpentine soils are not found in the Study Area. | No | No Effect |
| 20. | Small-flowered Gypsum-loving Larkspur <i>Delphinium gypsophilum</i> ssp. <i>parviflorum</i> | None/None G4T3?Q/None 3.2 | March - June | Clay soil in cismontane woodland; 200-350 m. | No. Appropriate habitat and soils are not present in Study Area. | No | No Effect |
| 21. | Eastwood's Larkspur <i>Delphinium parryi</i> ssp. <i>eastwoodiae</i> | None/None G4T2/None 1B.2 | March – May | Coastal chaparral, grassland, on serpentine; 100-500m sCCo, SCoRO (San Luis Obispo County) | No. Appropriate habitat and soils are not present in Study Area. | No | No Effect |

| | Common Name Scientific Name | Fed/State Status Global/State CRPR Rank | Blooming Period | Habitat Preference | Potential Habitat? | Detected in Study Area? | Effect of Activity |
|-----|---|--|----------------------------|--|--|--|-------------------------------|
| 22. | Umbrella Larkspur <i>Delphinium umbraclorum</i> | None/None G3/None 1B.3 | April - June | Moist oak forest; 400-1600 m. | No. Appropriate habitat is not present in Study Area. | No | No Effect |
| 23. | Koch's Cord Moss <i>Entosthodon kochii</i> | None/None G1/None 1B.3 | n/a | Cismontane woodland. Moss growing on soil; Bare sandy decomposed granite slopes in cismontane woodland, chaparral, forest; 360- 1000 m. SCoR, Monterey, SLO Counties | No. Appropriate moist soil conditions not present in Study Area. | No | No Effect |
| 24. | Yellow-flowered Eriastrum <i>Eriastrum luteum</i> | None/None G2/None 1B.2 | May – June | | No. Appropriate granite slopes are not present in Study Area. | No | No Effect |
| 25. | Elegant Wild Buckwheat <i>Eriogonum elegans</i> | None/None G3/None 4.3 | May – November | Sand or gravel; 200 – 1200 m. SnFrB, SCoR, WTR | Yes. Appropriate sandy soil in woodland habitat is found in the Study Area. | No | No Effect |
| 26. | Jepson's Woolly Sunflower <i>Eriophyllum jepsonii</i> | None/None G3/None 4.3 | April – June | Dry oak woodland; 200- 1000 m. SnFrB, SCoRI | Yes. Appropriate oak woodland habitat is found in the Study Area. | No | No Effect |
| 27. | San Benito Poppy <i>Eschscholzia hypecoides</i> | None/None G3/None 4.3 | March – June | Grassy area in woodland, chaparral; serpentine clay. 200-1600 m. SCoRI | No. Appropriate serpentine habitat not present in Study Area. | No | No Effect |
| 28. | Hogwallow Starfish <i>Hesperevax caulescens</i> | None/None G3/None 4.2 | March - June | Clay soils, mesic sites in valley and foothill grassland; 0-505 m. | No. Clay soils not present in Study Area. | No | No Effect |
| 29. | Mesa Horkelia <i>Horkelia cuneata</i> var. <i>puberula</i> | None/None G4T2/None 1B.1 | February - September | Dry, sandy coastal chaparral; gen 70-700 m. SCoRO, SCo. | No. Chaparral not present in Study Area. | No | No Effect |
| 30. | Kellogg's Horkelia <i>Horkelia cuneata</i> var. <i>sericea</i> | None/None G4T2/None 1B.1 | April - September | Old dunes, coastal sand hills; <200 m. CCo | No. Dune habitat is not present in the Study Area. | No | No Effect |

| | Common Name Scientific Name | Fed/State Status Global/State CRPR Rank | Blooming Period | Habitat Preference | Potential Habitat? | Detected in Study Area? | Effect of Activity |
|-----|---|--|----------------------------|---|--|--|-------------------------------|
| 31. | Santa Lucia Dwarf Rush <i>Juncus luciensis</i> | None/None G2G3/None 1B.2 | April – July | Vernal pools, ephemeral drainages, wet meadow habitats, and streams; Alkaline or clay soils, open areas, in pinyon-juniper woodland, grassland; 270-1705 m. Teh, SnJV, SCoR, n WTR | No. Appropriate habitat is not present in Study Area. | No | No Effect |
| 32. | Pale-yellow Layia <i>Layia heterotricha</i> | None/None G2/None 1B.1 | March - June | | No. Appropriate habitat and soils are not present in Study Area. | No | No Effect |
| 33. | Jared's Pepper-grass <i>Lepidium jaredii</i> ssp. <i>jaredii</i> | None/None G2T1T2/None 1B.2 | March - May | Alkali bottoms, slopes, washes, <500 m. SCoRI, SnJV | No. Appropriate soil type is not present in the Study Area. | No | No Effect |
| 34. | Davidson's Bush- mallow <i>Malacothammus davidsonii</i> | None/None G2/None 1B.2 | June - January | Sandy washes in coastal scrub, riparian woodland, chaparral; 180-855 m. c SCoRO, SCo | No. Appropriate habitat is not present in Study Area. | No | No Effect |
| 35. | Santa Lucia Bush- mallow <i>Malacothammus palmeri</i> var. <i>palmeri</i> | None/None G3T2Q/None 1B.2 | May - July | Chaparral, cismontane woodland, coastal scrub; 30-1100 m. s CCo, SCoRO | No. Appropriate habitat is not present in Study Area. | No | No Effect |
| 36. | Carmel Valley Malacothrix <i>Malacothrix saxatilis</i> var. <i>arachnoidea</i> | None/None G5T2/None 1B.2 | March - December | Rock outcrops, steep rocky road cuts in chaparral; 25-1215 m. Endemic to Monterey County | No. Appropriate habitat is not present in Study Area. Study Area is outside the known range of this species. | No | No Effect |
| 37. | Mt. Diablo Cottonweed <i>Micropus amphibolus</i> | None/None G3/None 3.2 | March - May | Bare, grassy, or rocky slopes; 50-800 m. NCoR, SnFrB, s SCoRO | No. Appropriate habitat is not present in the Study Area. | No | No Effect |
| 38. | Woodland Woollythreads <i>Monolopia gracilens</i> | None/None G2G3/None 1B.2 | March – July | Chaparral, serpentine grassland, cismontane woodland, sandy to rocky soils; SnFrB, SCoR | No. Appropriate habitat is not present in the Study Area. | No | No Effect |

| Common Name Scientific Name | Fed/State Status Global/State CRPR Rank | Blooming Period | Habitat Preference | Potential Habitat? | Detected in Study Area? | Effect of Activity |
|--|---|--------------------|--|---|-------------------------------|-----------------------|
| 39. Spreading Navarretia <i>Navarretia fossalis</i> | FT/None G1/None 1B.1 | April - June | Chenopod scrub, marshes and swamps, playas, and vernal pools; 30-1300m. SCoRO, SCo, to Baja Cal. | No. Appropriate habitat is not present in Study Area. | No | No Effect |
| 40. Shining Navarretia <i>Navarretia nigelliformis</i> ssp. <i>radicans</i> | None/None G4T2/None 1B.2 | May - July | Vernal pools, clay depressions, dry grasslands; 150-1000 m. SCoR | No. Appropriate habitat is not present in Study Area. | No | No Effect |
| 41. Prostrate Vernal Pool Navarretia <i>Navarretia prostrata</i> | None/None G2/None 1B.1 | April - June | Vernal pools or alkaline soils in grasslands; 15- 700 m. w SnIV, SCoRI, c SCo, PR | No. Appropriate vernal pool habitat is not present in Study Area. | No | No Effect |
| 42. Large-flowered Nemacladus <i>Nemacladus secundiflorus</i> var. <i>secundiflorus</i> | None/None G3T3?/None 4.3 | April – May | Dry, gravelly slopes; 200- 2000m. s SNH, SCoR | No. Appropriate gravel slopes are no present in Study Area. | No | No Effect |
| 43. Hooked Popcornflower <i>Plagiobothrys uncinatus</i> | None/None G2/None 1B.2 | April - May | Canyon sides, chaparral; on sandstone 300-600 m. n SCoR (Gabilan Range, Santa Lucia Mountains) | No. Appropriate habitat is not present in Study Area. | No | No Effect |
| 44. San Gabriel Ragwort <i>Senecio astephanus</i> | None/None G3/None 4.3 | January - April | Drying alkaline flats, chaparral, cismontane woodland, coastal scrub; <400 m. CW, SCo, ChI | No. Appropriate alkaline soils and habitat are not present in Study Area. | No | No Effect |
| 45. Santa Cruz Microseris <i>Stebbinsoseris deciptens</i> | None/None G2/None 1B.2 | April - May | Open areas in loose soil derived from sandstone, shale, or serpentine; 10-500 m. n & c CCo | No. Appropriate soils not present in Study Area. | No | No Effect |
| 46. Cook's Triteteleia <i>Triteleia tixioides</i> ssp. <i>cookii</i> | None/None G5T2/None 1B.3 | May - June | Streambeds, ravines on serpentine near cypresses; <500 m. SCoRO | No. Serpentine soils not present in Study Area. | No | No Effect |

Habitat characteristics are from the Jepson Manual and the CNDDDB.
*not listed in the CNDDDB or CNPS for the search area, but possibly for the location

Abbreviations:

| | | | |
|-----------------------------------|---|-------------------------|--------------------------------------|
| CCo: Central Coast | SnFrB: San Francisco Bay | SLO: San Luis Obispo | CW: Central West |
| SCo: South Coast | TR: Transverse Ranges | SN: Sierra Nevada | SW: South West |
| SCoR: South Coast Ranges | WTR: Western Transverse Ranges | SnJt: San Jacinto Mtns | DMoj: Mojave Desert |
| SCoRO: Outer South Coast Ranges | SnJV: San Joaquin Valley | SnBr: San Bernardino | PR: Peninsular Range |
| SCoRI: Inner South Coast Ranges | SeV: Sacramento Valley | Teh: Tehachapi Mtn Area | |
| FE: Federally Endangered | CE: California Endangered | | SA: CDFW Special Animal |
| FT: Federally Threatened | CT: California Threatened | | SSC: CDFW Species of Special Concern |
| PE: Proposed Federally Endangered | Cand. CE: Candidate for California Endangered | | FP: CDFW Fully-Protected |
| PT: Proposed Federally Threatened | Cand. CT: Candidate for California Threatened | | WL: CDFW Watch List |

4.4 Special Status Plants Discussion

Five special status plant species have potential to occur in the Study Area based on review of known ecological requirements of these species and habitat conditions observed. No special status plant species were detected in the Study Area during botanical surveys in January, February, April and May 2014. We discuss each species and describe habitat, range restrictions, known occurrences, and potential to occur in the Study Area.

- A. **Indian Valley Spineflower** (*Aristocapsa insignis*) is a CRPR 1B.2 species that is endemic to Monterey and San Luis Obispo Counties. The CNDDDB contains records of 4 documented localities for this species; two in Monterey County and two in San Luis Obispo County. The closest occurrence is in the vicinity of Indian Valley, near the Salinas River, approximately 11 miles northwest of the Study Area (CNDDDB #3). Appropriate sandy substrate occurs in the Study Area for Indian Valley spineflower. The Study Area is plowed annually, reducing the potential for this species to occur onsite. Botanical surveys in April and May did not find Indian Valley spineflower on or near the Study Area.
- B. **San Luis Obispo Owl's-clover** (*Castilleja densiflora* var. *obispoensis*) is a CRPR 1B.2 subspecies endemic to San Luis Obispo County. It is an annual wildflower that occurs mainly in coastal grasslands in sandy or clay soils. It is not generally known from inland areas, however there are recent reports from the Paso Robles region (CNDDDB #36, #37, #42). The closest reported occurrence is from the property adjacent to the Study Area near the intersection of Airport Road and Dry Creek Road (CNDDDB #42). Limited habitat is present for this rare subspecies in the Study Area on slopes in annual grassland not disturbed by agricultural operations. San Luis Obispo owl's clover was not observed in the Study Area during the appropriately timed spring 2014 surveys, however, because of the severe two year drought it may not have appeared this year, and could be present on undisturbed slopes. The proposed project area does not include these potential habitat areas.
- C. **Douglas' Spineflower** (*Chorizanthe douglasii*) is a CRPR 4.3 species known from San Benito, Monterey, and San Luis Obispo Counties. It is considered rare, but found in sufficient numbers and distributed widely enough within its known range that the threat of extinction is low at this time. This spineflower grows in gravelly or sandy substrates in the Santa Margarita area (Hoover #11352, Crampton #6978, etc.), and other areas of San Luis Obispo County (Adelaida (Rose #36265), Nacimiento River (Hardham #4396), Bee Rock (Bacigalupi #7434). Appropriate sandy substrate occurs in the Study Area for Douglas' spineflower, but the property is plowed annually, reducing the potential for this species to occur in the Study Area. Botanical surveys in April and May did not find Douglas' spineflower on or near the Study Area.
- D. **Elegant Wild Buckwheat** (*Eriogonum elegans*) is a CRPR 4.3 annual species occurring in sandy or gravelly soil in cismontane woodlands and valley and foothill grasslands. It is uncommon and ranges from the San Francisco Bay area to the South Coast and Western Transverse ranges. This species was reported from near San Miguel in 1912, and four reports between San Miguel and Lake Nacimiento for 2000 to 2002 (Calflora). Other reports of this species in San Luis Obispo County are from Highway 58 at Shell Creek in

2006, a location more than 20 miles from the Study Area. There are no reports in the CNDDDB for this species in San Luis Obispo County. Elegant wild buckwheat was not observed in the Study Area.

- E. Jepson’s Woolly Sunflower** (*Eriophyllum jepsonii*) is a CRPR 4.3 perennial herb known from Alameda, Contra Costa, Kern, Monterey, San Benito, Santa Clara, Stanislaus, and Ventura Counties. The Jepson’s woolly sunflower typically blooms April through June. It has not been reported from San Luis Obispo County. Moderately appropriate habitat in the Study Area consists of openings in blue oak woodland. Botanical surveys in April and May did not find Jepson’s woolly sunflower on or near the Study Area.

4.5 Potential Special Status Animals List

Table 4 lists 35 special status animal species reported from the region. Federal and California State status, global and State rank, and CDFW listing status for each species are given. Typical nesting or breeding period, habitat preference, potential habitat on site, and whether or not the species was observed in the Study Area are also provided.

TABLE 4. SPECIAL STATUS ANIMAL LIST. Thirty-five special status animals known or reported from the region are listed. Sixteen special status animals could potentially occur in the Study Area based on review of preferred habitat types.

| | Common and Scientific Names | Fed/State Global/State Rank CDFW Rank | Nesting/Breeding Period | Habitat Preference | Potential Habitat? | Observed On-site? | Effect of Proposed Activity |
|----|--|---|-------------------------|--|---|------------------------|---|
| 1. | Cooper's Hawk* <i>Accipiter cooperi</i> | None/None G5/S3 Special Animal (Nesting) | March 15 - August 15 | Oak woodland, riparian, open fields. Nests in dense trees, esp. coast live oak. Requires open water, protected nesting substrate, & foraging area with insect prey near nesting colony. | Yes. Appropriate nesting and foraging habitat present in the Study Area. No. Open water not present in the Study Area. | Yes (not nesting) | Potential Adverse Effect can be Mitigated |
| 2. | Tricolored Blackbird <i>Agelaius tricolor</i> | None/None G2/G3/S2 SSC | March 15 - August 15 | | Yes. Appropriate sandy soils and oak woodland habitat present in Study Area. | No | No Effect |
| 3. | Silvery Legless Lizard <i>Anniella pulchra pulchra</i> | None/None G3/G4/T3/T4/Q/S3 SSC | May - September | Sandy or loose loamy soils under coastal scrub or oak trees. Soil moisture essential. | Yes. Oak trees with hollows are present in the Study Area. | No | Potential Adverse Effect can be Mitigated |
| 4. | Pallid Bat <i>Antrozous pallidus</i> | None/None G5/S3 SSC | Spring - Summer | Rock crevices, caves, tree hollows, mines, old buildings, and bridges. | Yes. Appropriate nesting habitat and food source are present in Study Area. Historic nesting location located adjacent to Study Area. | No | Potential Adverse Effect can be Mitigated |
| 5. | Golden Eagle <i>Aquila chrysaetos</i> | None/None G5/S3 FP | March 15 - August 15 | Nests in large, prominent trees in valley and foothill woodland. Requires adjacent food source. | No. Appropriate nesting habitat not present in Study Area. | Yes (nest not on site) | Potential Adverse Effect can be Mitigated |
| 6. | Great Blue Heron <i>Ardea herodias</i> | None/None G5/S4 SA | March 15 - August 15 | Rookeries located in tall trees near foraging areas. | Yes. Moderately appropriate habitat is present in the Study Area. | No | No Effect |
| 7. | Burrowing Owl <i>Athene cunicularia</i> | None/None G4/S3 SSC | March 15 - August 15 | Burrows in squirrel holes in open habitats with low vegetation. | Yes. Appropriate oak woodland habitat is present in the Study Area. | Yes | Potential Adverse Effect can be Mitigated |
| 8. | Oak Titmouse* <i>Baeolophus inornatus</i> | None/None G5/S3? Special Animal (Nesting) | March 1 - August 31 | Nests in cavities in oak woodland habitat. Non-migratory. | | Yes | Potential Adverse Effect can be Mitigated |

| | Common and Scientific Names | Fed/State Status Global/State Rank CDFW Rank | Nesting/Breeding Period | Habitat Preference | Potential Habitat? | Observed On-site? | Effect of Proposed Activity |
|-----|--|--|--------------------------------|--|---|-------------------|---|
| 9. | Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> | FT/None G3/S2S3 SA | Rainy Season | Clear water sandstone depression pools, grassed swale, earth slump, or basalt flow depression pools. Winters locally in open grassland or savannah habitats. More common in interior SLO County than coast. | No. Vernal pool habitat is not present in the Study Area. | No | No Effect |
| 10. | Ferruginous Hawk <i>Buteo regalis</i> | None/None G4/S3S4 WL | October - April (Wintering) | Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, agricultural fields. | Yes. Moderately suitable wintering habitat is present in the Study Area. Unlikely. The Study Area is outside the core breeding range and migration path of this species, but may provide foraging habitat. | No | No Effect |
| 11. | Swainson's Hawk* <i>Buteo swainsoni</i> | None/Threatened G5/S2 Special Animal (Nesting) | March 15 through August 15 | Nests in open oak or other arid woodland and chaparral habitats, near water. | Yes. Appropriate oak woodland habitat is present in the Study Area. | Yes | Potential Adverse Effect can be Mitigated |
| 12. | Lawrence's Goldfinch* <i>Carduelis lawrencei</i> | None/None G3G4/S3 Special Animal (Nesting) | March 15 - August 15 | Permanent or semi-permanent streams, ponds, lakes. | No. Appropriate aquatic habitat does not occur in the Study Area. | No | No Effect |
| 13. | Western Pond Turtle <i>Emys</i> [= <i>Actinemys</i>] <i>marmorata</i> | None/None G3G4/S3 SSC | April - August | Nests on the ground in open habitats. More common in the interior. | Unlikely. Poor quality nesting habitat is present in the Study Area. | No | No Effect |
| 14. | California Horned Lark <i>Eremophila alpestris actia</i> | None/None G5T3Q/S3 WL | March 15 - August 15 | Inhabits dry, open terrain. Nests on cliffs near open areas for hunting. | No. Appropriate nesting habitat not present in Study Area. | No | No Effect |
| 15. | Prairie Falcon <i>Falco mexicanus</i> | None/None G5/S3 WL | March 15 - August 15 | Nests within 1 mile of water in tall live tree with open branches. | No. Study Area is not located within one mile of open water. | No | No Effect |
| 16. | Bald Eagle <i>Haliaeetus leucocephalus</i> | None/CE G5/S2 FP | March 15 - August 15 | | | | |

| | Common and Scientific Names | Fed/State Status Global/State Rank CDFW Rank | Nesting/Breeding Period | Habitat Preference | Potential Habitat? | Observed On-site? | Effect of Proposed Activity |
|-----|---|--|-------------------------|---|--|-------------------|---|
| 17. | Hoary Bat <i>Lasturus cinereus</i> | None/None G5/S4? SA | Spring-Fall | Forages in open habitats or habitat mosaics with trees. Roosts in dense foliage of medium to large trees. Feeds on moths. Requires water. | No. Appropriate habitat not present in Study Area. | No | No Effect |
| 18. | San Joaquin Whipsnake <i>Masticophis flagellum ruddocki</i> | None/None G5T2T3/S2? SSC | May | Open, dry, treeless areas, including grasslands and saltbush scrub; takes refuge in burrows and under shaded vegetation | No. Appropriate habitat is not present in the Study Area. | No | No Effect |
| 19. | Lewis's Woodpecker* <i>Melanerpes lewis</i> | None/None G4/SNR SA | March 15 - August 15 | Open pine, riparian or oak woodlands, also orchards. | Yes. Appropriate habitat is present in the Study Area, and Study Area is located next to a known wintering location. | Yes | Potential Adverse Effect can be Mitigated |
| 20. | Monterey Dusky-footed Woodrat <i>Neotoma macrotis luciana</i> | None/None G5T3/S3? SSC | n/a | Variety of habitats with moderate to dense understory vegetation | No. Appropriate understory habitat is not present in the Study Area. | No | No Effect |
| 21. | Steelhead - South/Central California Coast DPS <i>Oncorhynchus mykiss irideus</i> | FT/None G5T2Q/S2 SSC | February - April | Fed listing refers to runs in coastal basins from Pajaro River south to, but not including, the Santa Maria River. | No. Appropriate aquatic habitat is not present in the Study Area. | No | No Effect |
| 22. | San Joaquin Pocket Mouse <i>Perognathus inornatus inornatus</i> | None/None G4T2T3/S2S3 SA | n/a | Grasslands and blue oak savannahs with friable soil and occasional shrubs. Also chaparral. | No. Reports of this subspecies west of the San Joaquin valley are incorrect. Museum specimens used as the basis of CNDDDB reports are annotated to <i>P. inornatus neglectus</i> . | No | No Effect |

| | Common and Scientific Names | Fed/State Status Global/State Rank CDFW Rank | Nesting/Breeding Period | Habitat Preference | Potential Habitat? | Observed On-site? | Effect of Proposed Activity |
|-----|--|--|-------------------------|---|---|-------------------|---|
| 23. | Salinas Pocket Mouse <i>Perognathus inornatus psammophilus</i> | None/None G4T2?/S2? SSC | n/a | Annual grassland and desert shrub in Salinas Valley, with friable soils | No. Appropriate habitat is not present in the Study Area. | No | No Effect |
| 24. | Coast Horned Lizard <i>Phrynosoma blainvillii</i> | None/None G3G4/S3S4 SSC | May - September | Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. | No. Appropriate habitat is not present in the Study Area. Sandy creek bed is present, but no shrubs are present in channel. | No | No Effect |
| 25. | Yellow-billed Magpie* <i>Pica nuttallii</i> | None/None G3G4/S3S4 Special Animal (Nesting & Communal Roosts) | March 15 - August 15 | Open oak and riparian woodlands near grassland, pasture, or cropland in Central Valley from south of San Francisco to Santa Barbara. | Yes. Appropriate nesting habitat is present in the Study Area.. | Yes | Potential Adverse Effect can be Mitigated |
| 26. | Nuttall's Woodpecker* <i>Picoides nuttallii</i> | None/none G5/SNR Special Animal (Nesting) | March 15 - August 15 | Nests in standing snag or hollow tree in oak woodland and oak forest habitats. | Yes. Appropriate nesting habitat is present at the Site. | Yes | Potential Adverse Effect can be Mitigated |
| 27. | Atascadero June Beetle <i>Polyphylla nubila</i> | None/None G1/S1 SA | n/a | Known only from sand dunes in Atascadero and San Luis Obispo, San Luis Obispo County. | No. Dune habitat is not present in the Study Area. | No | No Effect |
| 28. | California Red-legged Frog <i>Rana draytonii</i> | FT/None G2G3/S2S3 SSC | January - September | Lowlands and foothills in or near sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks for larval development. | No. Appropriate habitat is not present in the Study Area | No | No Effect |
| 29. | Yellow Warbler* <i>Setophaga petechia brewsteri</i> | None/None G5T3?/S2 SSC | March 15 - August 15 | Nests in riparian plant associations, including willows, cottonwoods, etc. | Yes. Limited poor quality nesting habitat present in Study Area. Suitable migration stop-over habitat is present. | Yes (not nesting) | No Effect |

| Common and Scientific Names | Fed/State Status Global/State Rank CDFW Rank | Nesting/Breeding Period | Habitat Preference | Potential Habitat? | Observed On-site? | Effect of Proposed Activity |
|---|--|-------------------------|---|---|-------------------|---|
| 30. Western Spadefoot <i>Spea hammondi</i> | None/None G3/S3 SSC | January – August | Vernal pools in grassland and woodland habitats | No. Vernal pool habitat is not present in the Study Area. | No | No Effect |
| 31. Coast Range Newt <i>Taricha torosa</i> | None/None G4/S4 SSC | December - May | Slow moving streams, ponds, and lakes with surrounding evergreen/oak forests along coast. | No. Appropriate habitat is not present in the Study Area. | No | No Effect |
| 32. American Badger <i>Taxidea taxus</i> | None/None G5/S4 SSC | February – May | Needs friable soils in open ground with abundant food source such as California ground squirrels. | Yes. Appropriate soil type and abundant food source are present on site. | No | Potential Adverse Effect can be Mitigated |
| 33. Lompoc Grasshopper <i>Trimerotropis occulens</i> | None/None GH/SH SA | n/a | Unknown. Known only from Santa Barbara and San Luis Obispo Counties | No. Single specimen from 1908 from an unknown location. | No | No Effect |
| 34. Least Bell's Vireo <i>Vireo bellii pusillus</i> | FE/CE G5T2/S2 WL | March 15 - August 15 | Riparian habitat, near water or dry streambed, <2000 ft. Nests in willows, mesquite, Baccharis. | No. Riparian habitat in Study Area is not appropriate for nesting Bell's vireo. | No | No Effect |
| 35. San Joaquin Kit Fox <i>Vulpes macrotis nutica</i> | FE/CT G4T2T3/S2S3 SA | December – July | Annual grasslands or grassy open stages with scattered shrubby vegetation. | Yes. Appropriate habitat is present in the Study Area. | No | Potential Adverse Effect can be Mitigated |

Habitat characteristics are from the CNDDDB. *not listed in the CNDDDB or CNPS for the search area, but possibly for the location.

Abbreviations:

- FE: Federally Endangered
- FT: Federally Threatened
- PE: Proposed Federally Endangered
- PT: Proposed Federally Threatened

- CE: California Endangered
- CT: California Threatened
- Cand. CE: Candidate for California Endangered
- Cand. CT: Candidate for California Threatened

- SA: CDFW Special Animal
- SSC: CDFW Species of Special Concern
- FP: CDFW Fully-Protected
- WL: CDFW Watch List

4.6 Special Status Animals Discussion

Sixteen special status animal species could occur in the Study Area. Below we discuss each species and describe habitat, range restrictions, known occurrences, and survey results.

- A. Cooper's Hawk** (*Accipiter cooperii*) is a Special Animal that occurs regularly in San Luis Obispo County during the winter months and during spring and fall migration. It is generally regarded as a regular but uncommon nesting species in San Luis Obispo County. Cooper's hawks frequent oak and riparian woodland habitats, and increasingly urban areas, where they prey primarily upon small birds. There are no reports in the CNDDDB of Cooper's hawks nesting in the Paso Robles area, but appropriate oak tree canopy is present on the Property for nesting Cooper's hawks. A Cooper's hawk was seen in the Study Area during May surveys, flying low over the oaks on the east side of the property. No breeding behavior was observed.
- B. Silvery Legless Lizard** (*Anniella pulchra pulchra*) is a California Species of Special that inhabits friable soils in a variety of habitats from coastal dunes to oak woodlands and chaparral. The sandy soils in oak woodlands on the property are adequate for silvery legless lizard. This species is difficult to find and is probably under reported throughout its' range. There are three records of silvery legless lizard in the Paso Robles area in the CNDDDB, the closest of which is approximately 7 miles northwest of the Study Area. A&M biologists located silvery legless lizards in blue oak woodland less than one mile from the Study Area (CNDDDB report submitted 2012). Silvery legless lizard was not identified on the property in 2014 but could occur in leaf litter beneath oak trees.
- C. Pallid Bat** (*Antrozous pallidus*) is a California Species of Special Concern. This is a large, long-eared bat occurring throughout the state from deserts to moist forests. *Antrozous pallidus* is primarily a crevice roosting species that selects roosts where they can retreat from view. They frequently occur in oak woodlands where they roost in tree cavities. These roosts are generally day or night roosts for one or a few bats. Attics may be used as roosts and during hot days they may emerge from crevices and roost on open rafters. Communal wintering or maternity colonies are more common in rock crevices and caves. The nearest record is approximately 7 miles northwest of the Study Area, a maternity colony under the River Road bridge over the Salinas River (CNDDDB #104), however this bridge was demolished and replaced. The next nearest record is 11 miles to the northwest in oak woodlands on Camp Roberts, most likely a night roost (CNDDDB #213). Pallid bats likely forage seasonally in the Salinas River and adjacent riparian habitats, and may forage in riparian habitats up Huerhuero Creek. They may roost in small numbers in large riparian or oak trees in the Study Area. Maternity colonies are not expected to occur on the property.
- D. Golden Eagle** (*Aquila chrysaetos*) is designated a Fully Protected species by the CDFW. Fully Protected species may not be taken under any circumstances, and authorization for take may not be granted (refer to Section 3.6.2). The golden eagle is also protected under the federal Bald and Golden Eagle Protection Act. Golden eagles require large trees for nesting and open hunting grounds with abundant prey. There is a golden eagle nest approximately 1,000 feet west of the Study Area in oak woodland

along Huerhuero Creek and approximately 1500 feet from the nearest proposed lot line (CNDDDB #122). Based on information in the CNDDDB, eagles have nested in this area for over 20 years. Two golden eagles were observed in the Study Area during May surveys, perched atop large oak trees in the woodland in the western portion of the Study Area, approximately 0.3 miles east of the nest location. The Study Area contains suitable foraging habitat for the eagles, as well as potential nesting habitat in the form of large oaks.

- E. Burrowing Owl** (*Athene cunicularia*) is a small, uncommon owl that nests in abandoned holes in the ground, most notably those of the California ground squirrel. It is listed as a California Species of Special Concern. Burrowing owls are a common resident in local areas of the interior, from the Bitterwater Valley to the Carrizo Plains and elsewhere. Less frequent reports are from coastal grasslands. There are multiple reports of burrowing owls in the CNDDDB at Camp Roberts, approximately 9 miles northwest of the Study Area. Appropriate nesting habitat is present in the Study Area in the form of ground squirrel burrows, though the area is highly disturbed due to annual or biannual plowing. Transient owls could use the Study Area for wintering or nesting. No signs of burrowing owls were found during wildlife surveys in May 2014.
- F. Oak Titmouse** (*Baeolophus inornatus*) is a Special Animal that is an oak woodland obligate, nesting in cavities in oak trees. It is a common species in oak woodlands on the central coast, but is tracked by the CDFW due to state-wide losses of oak woodland habitat. The oak titmouse nests in oak woodland habitat in the Study Area. During spring surveys an active oak titmouse nest was found, and several pairs of adult birds were observed feeding recent fledglings.
- G. Ferruginous Hawk** (*Buteo regalis*) is a California Species of Special Concern that winters in grassland habitats in San Luis Obispo County and elsewhere in California. It does not breed in San Luis Obispo County, but is protected on its wintering grounds. Ferruginous hawks prefer short-grass habitats such as grasslands and fallow farm fields where they often perch on the ground and hunt by coursing low over the fields. They are regular but never abundant winter residents in the interior portion of the County. There is one record in the CNDDDB of two wintering ferruginous hawks at Camp Roberts, approximately 10 miles northwest of the Study Area (CNDDDB #75). Ferruginous hawks were not observed during our wildlife surveys in January and February 2014 but could occur as an uncommon winter resident or migrant.
- H. Swainson's Hawk** (*Buteo swainsoni*) is a state-listed threatened species that breeds in California and winters in Mexico and South America. It nests in large trees in riparian habitats and upland areas in arid grassland and shrub-steppe habitats. In the San Joaquin and Sacramento Valleys of California, agricultural habitats are often used for foraging, with nests built in adjacent riparian corridors. The Swainson's hawk is a very uncommon breeder in San Luis Obispo County. Until 2010, the most recent confirmed nest record was from the San Juan River south of Shandon in 1977. In 2010, two nesting records were reported for Swainson's hawk in San Luis Obispo County (CNDDDB #1722 and #1723). One record was from west of Shandon along Highway 46, approximately 5.5 miles east of the Study Area, and one was from the Cuyama Valley, over 50 miles southeast of the site. Potentially suitable nesting and foraging habitat is

present in the Study Area for Swainson's hawk. Swainson's hawks were not observed during 2014 wildlife surveys.

- I. **Lawrence's Goldfinch** (*Carduelis lawrencei*) is a Special Animal that nests in oak habitats in the mountain areas of northern and eastern San Luis Obispo County, and elsewhere in California. Flocks of Lawrence's goldfinches tend to be highly mobile, moving to seasonal food sources. It is highly likely that Lawrence's Goldfinches breed in oak woodland habitat in the Study Area, as a pair of adult goldfinches was observed feeding four fledglings during May 2014 surveys. Other adult birds were also observed foraging in a separate location in the Study Area.
- J. **California Horned Lark** (*Eremophila alpestris actia*) is a Watchlist species known to breed from Sonoma County south to San Diego County, as well as east to the foothills of the Sierra Nevada Mountains. It breeds in open, flat habitats with short vegetation, including grasslands, alkali flats, fallow grain fields, and meadows. Horned larks are common in the interior areas of San Luis Obispo County and less so coastally. They are known to make local movements through the seasons, and may not breed in all areas they are observed. Horned larks were not observed in the Study Area during 2014 wildlife surveys.
- K. **Lewis's Woodpecker** (*Melanerpes lewis*) is a Special Animal that nests in oak habitats in San Luis Obispo County, and pine, riparian, or oak woodland habitats throughout central and northern California. In San Luis Obispo County, Lewis's woodpeckers have a restricted range, breeding only in the vicinity of Paso Robles. Lewis's woodpeckers breed in the oak savannah in the Study Area. A Lewis's woodpecker nest was found in a blue oak in the north central part of the Study Area, and an adult bird was observed entering the cavity.
- L. **Yellow-billed Magpie** (*Pica nuttallii*) is a Special Animal that is endemic to the Central Valley of California, from Sacramento south to Santa Barbara. It is a resident of oak savannah and open oak woodlands, where it lives and breeds in communal groups. Yellow-billed magpies are present in the Study Area, and an active nest was found on the north bank of Huerhuero Creek.
- M. **Nuttall's Woodpecker** (*Picoides nuttallii*) is a Special Animal tracked by the CDFW due to statewide reduction in preferred oak woodland habitats. Nuttall's woodpeckers remain fairly common residents in oak woodland habitats throughout Santa Barbara and San Luis Obispo Counties. They were observed in oak habitats in the Study Area and are expected to nest in oak woodlands within the project site boundary.
- N. **Yellow Warbler** (*Setophaga petechia brewsteri*) is a California Special Concern species with a restricted breeding range in Central and Southern California. The status of this subspecies of yellow warbler is described by the CNDDDB as "restricted range, rare". They frequent riparian habitats, nesting in sycamores, cottonwoods, willows, and other riparian trees. There are no breeding records in the CNDDDB for yellow warbler in SLO County; however, yellow warbler is a regular spring and fall migrant that will breed in the County. The riparian habitat along Huerhuero Creek is poor nesting habitat, but suitable for foraging. Yellow warblers are highly unlikely to breed in the Study Area, but may stop and forage during migration. During May 2014 surveys, a singing male

yellow warbler was detected in an oak tree in the grassland, indicating it was likely a migrating individual.

- O. American Badger** (*Taxidea taxus*) is a California Species of Special Concern known from open grassland habitats throughout San Luis Obispo County and elsewhere in California. Badgers are highly mobile and hunt ground squirrels and other small and medium-sized prey. Appropriate habitat for badgers is found in the Study Area, due to the abundant ground squirrels. A&M biologists have observed badgers on Paso Robles Airport property approximately 2,000 feet northeast of the Study Area. No signs of badgers were observed in the Study Area during spring site surveys in 2014.
- P. San Joaquin Kit Fox** (*Vulpes macrotis mutica*) is a federally listed endangered species and a state listed threatened species. The CNDDDB reports two occurrences from approximately 0.5 miles south of the Study Area on Chandler Ranch from 1990 and 1991, respectively (CNDDDB #945, #941). These two records are the most recent reports from Paso Robles. No San Joaquin kit foxes (SJKF) have been reported from within 10 miles of the Study Area in the last seven years (Camp Roberts airfield, 2007). However, the Study Area is part of a potential corridor for transient kit foxes between the existing population in eastern San Luis Obispo County and Camp Roberts habitat. SJKF has not been observed on Camp Roberts since 2007. The oak savannah and fallow cropland on the property provide some habitat for San Joaquin kit fox. This area is within the three to one mitigation ratio area (as per the San Luis Obispo County Standard Kit Fox Mitigation Ratios map, found at:
<http://www.sloplanning.org/gis/mapimagepdf/kitfox.pdf>).

4.7 Special Status Species Not Expected to Occur

The remaining 56 special status species reported to occur in the Bradley, San Miguel, Ranchito Canyon, Adelaida, Paso Robles, Estrella, York Mountain, Templeton, and Creston quadrangles are not expected to occur in the Study Area due to the absence of required soil type, lack of appropriate habitat, or because the Study Area is substantially outside the known range of the species.

4.8 Potential Sensitive Natural Communities

The CNDDDB reports one sensitive natural community in the Bradley, San Miguel, Ranchito Canyon, Adelaida, Paso Robles, Estrella, York Mountain, Templeton, and Creston quadrangles.

TABLE 5. SENSITIVE NATURAL COMMUNITIES.

| | Common Name | Global/State Rank | Potential Habitat? | Effect of Proposed Activity |
|---|---------------------|-------------------|---|-----------------------------|
| 1 | Valley Oak Woodland | G3/S2.1 | No. Valley oak woodland is not present in the Study Area. | No Effect |

5.0 Habitat Types

We describe four habitat types in the Study Area and provide approximate acreages for each habitat type present in 2014 (Table 6): cropland, oak woodland, oak savannah and riparian. The Habitat Map provided in Section 13 indicates the locations of each habitat type in the Study Area as of 2014. No sensitive natural communities occur in the Study Area.

TABLE 6. HABITAT DATA. The approximate acreage and location are provided for all habitat types occurring in the Study Area.

| Habitat Type | Approx. Acreage |
|--------------|-----------------|
| Cropland | 166 |
| Oak woodland | 26 |
| Oak savannah | 10 |
| Riparian | 18 |

5.1 Cropland

The dominant habitat type in the Study Area is cropland, which covers approximately 166 acres. The cropland is plowed one to two times a year and planted with barley (*Hordeum vulgare*), which is dry-farmed. This acreage has been farmed for at least the last 5 years. In 2014, at least 20 acres of plowed land on the east and north sides of the Study Area were not planted. Cattle are currently grazed on the eastern portion of the Study Area, on the floodplain between Huerhuero Creek and the embankment. Scattered blue oaks (*Quercus douglasii*) and valley oaks (*Quercus lobata*) occur in the cropland. California ground squirrels are abundant in the fallow fields, and therefore this habitat could be important for foraging golden eagles and other raptors.

5.2 Oak Woodland and Oak Savannah

Oak woodland covers approximately 26 acres of the Study Area, and oak savannah covers approximately 10 acres. The largest patch of woodland is a 15-acre stand in the western portion of the Study Area with smaller stands of oak woodland on the north-facing and east-facing

slopes of the embankment that follows the contour of Huerhuero Creek. Oak savannah occurs along the east-facing and south-facing slopes of the embankment which are too steep to be plowed, and are the only places in the Study Area where patches of grassland occur (considered oak understory, not grassland habitat). The oak woodland is comprised primarily of blue oaks, with some coast live (*Quercus agrifolia*) and valley oaks, and has a diverse understory consisting of non-native grasses, native forbs and bulbs. The oak savannah understory is comprised almost entirely of non-native annual grasses such as ripgut brome (*Bromus diandrus*) and slender wild oat (*Avena fatua*), and is dotted with mature blue and valley oaks. The oaks provide nesting and foraging habitat for sensitive bird species such as Lewis's woodpecker, oak titmouse, Nuttall's woodpecker, yellow-billed magpie, and Lawrence's goldfinch. Golden eagles nest in the oak woodland along Huerhuero Creek west of the Study Area, and roost and perch in the oaks in the Study Area. Other raptors such as Cooper's hawk and great-horned owl may nest or roost in the oaks. The woodland understory may provide foraging habitat and shelter for sensitive and common herpetofauna and small mammal species. Bats may also roost in hollows in the oaks.

5.3 Riparian

Riparian habitat occurs along the Huerhuero River. This habitat is sparse distribution of Fremont cottonwood (*Populus fremontii*), red willow (*Salix laevigata*), with widely spaced patches of wild rose (*Rosa californica*), fragrant sumac (*Rhus aromatica [=R. trilobata]*), poison oak (*Toxicodendron diversilobum*), coyote bush (*Baccharis pilularis*), and mule fat (*Baccharis salicifolia*). Blue oaks and valley oaks intermittently occur along the banks. Over thirty large cottonwood trees were removed from the riparian corridor of the Huerhuero River in 2014. Trees and shrubs along the river within the Study Area are sparse and patchy. The proposed project would not be within 500 feet of the Huerhuero River banks, and would not affect riparian habitat.

6.0 Botanical Inventory

6.1 Botanical Survey Results

Botanical surveys conducted in May 2014 identified 102 species, subspecies and varieties of vascular plant taxa in the Study Area (Table 7). The list includes 66 species native to California, 33 introduced (naturalized or planted) species and 3 plants identified to genus from unknown origins. No special status plant species occur in the Study Area. Native plant species account for approximately 64 percent of the taxa within the Study Area; introduced species account for approximately 33 percent.

TABLE 7. VASCULAR PLANT LIST. The 101 species of vascular plants identified in the Study Area consist of 66 native species, 33 planted or introduced species, and 3 that could not be identified to origin. The vascular plant list is separated into general life form categories, within which the taxa are listed alphabetically by scientific name.

| Scientific Name | Status | Origin | Common Name |
|---|--------|------------|--------------------|
| Trees – 5 species | | | |
| <i>Populus fremontii</i> ssp. <i>fremontii</i> | None | Native | Fremont cottonwood |
| <i>Quercus agrifolia</i> var. <i>agrifolia</i> | None | Native | Coast live oak |
| <i>Quercus douglasii</i> | None | Native | Blue oak |
| <i>Quercus lobata</i> | None | Native | Valley oak |
| <i>Salix laevigata</i> | None | Native | Red willow |
| Shrubs – 6 species | | | |
| <i>Baccharis pilularis</i> | None | Native | Coyote brush |
| <i>Baccharis salicifolia</i> | None | Native | Mule fat |
| <i>Rhus aromatica</i> [= <i>R. trilobata</i>] | None | Native | Fragrant sumac |
| <i>Rosa californica</i> | None | Native | Wild rose |
| <i>Solanum umbelliferum</i> | None | Native | Blue witch |
| <i>Toxicodendron diversilobum</i> | None | Native | Poison oak |
| Herbs – 77 species | | | |
| <i>Acmispon</i> [= <i>Lotus</i>] <i>brachycarpus</i> . | None | Native | Hill lotus |
| <i>Acmispon</i> [= <i>Lotus</i>] <i>strigosus</i> | None | Native | Bishop lotus |
| <i>Amaranthus</i> sp. | None | Unknown | Amaranth |
| <i>Ambrosia psilostachya</i> | None | Native | Western ragweed |
| <i>Amsinckia intermedia</i> [= <i>A. menziesii</i> var. <i>intermedia</i>] | None | Native | Common fiddleneck |
| <i>Amsinckia menziesii</i> | None | Native | Common fiddleneck |
| <i>Anthemis cotula</i> | None | Introduced | Mayweed |
| <i>Artemisia douglasiana</i> | None | Native | Mugwort |
| <i>Asclepias eriocarpa</i> | None | Native | Indian milkweed |

| Scientific Name | Status | Origin | Common Name |
|--|--------|------------|------------------------|
| <i>Asclepias fascicularis</i> | None | Native | Narrow-leaved milkweed |
| <i>Astragalus</i> sp. | None | Native | Milkvetch |
| <i>Bloomeria crocea</i> | None | Native | Common goldenstar |
| <i>Brassica nigra</i> | None | Introduced | Black mustard |
| <i>Brodiaea terrestris</i> | None | Native | Brodiaea |
| <i>Calandrinia ciliata</i> | None | Native | Red maids |
| <i>Camissonia strigulosa</i> | None | Native | Sun cup |
| <i>Capsella bursa-pastoris</i> | None | Introduced | Shepherd's purse |
| <i>Centaurea melitensis</i> | None | Introduced | Tocolote |
| <i>Chaenactis glabriuscula</i> | None | Native | Yellow pincushion |
| <i>Chlorogalum pomeridianum</i> | None | Native | Soaproot |
| <i>Clarkia purpurea</i> | None | Native | Wine cups |
| <i>Claytonia perfoliata</i> | None | Native | Miner's lettuce |
| <i>Collinsia heterophylla</i> | None | Native | Collinsia |
| <i>Croton [=Eremocarpus] setigerus</i> | None | Native | Dove weed |
| <i>Cuscuta californica</i> | None | Native | California dodder |
| <i>Datura wrightii</i> | None | Native | Jimsonweed |
| <i>Deinandra [=Hemizonia] pentactis</i> | None | Native | Salinas tarplant |
| <i>Dichelostemma capitatum</i> | None | Native | Blue dicks |
| <i>Erigeron [=Conzya] canadensis</i> | None | Native | Common horseweed |
| <i>Eriogonum baileyi</i> | None | Native | Buckwheat |
| <i>Erodium botrys</i> | None | Introduced | Filaree |
| <i>Erodium cicutarium</i> | None | Introduced | Redstem filaree |
| <i>Erodium moschatum</i> | None | Introduced | Filaree |
| <i>Euphorbia spathulata</i> | None | Native | Spurge |
| <i>Galium aparine</i> | None | Native | Goose grass |
| <i>Gilia achilleifolia</i> | None | Native | California gilia |
| <i>Glycyrrhiza lepidota</i> | None | Native | Wild licorice |
| <i>Helianthemum scoparium</i> | None | Native | Rush rose |
| <i>Heliotropium curassavicum</i> var. <i>oculatum</i> | None | Native | Heliotrope |
| <i>Hypochaeris glabra</i> | None | Introduced | Smooth cat's ear |
| <i>Iva axillaris</i> [=ssp. <i>robustior</i>] | None | Native | Poverty weed |
| <i>Juncus mexicanus</i> | None | Native | Mexican rush |
| <i>Lamium amplexicaule</i> | None | Introduced | Henbit |
| <i>Lepidium nitidum</i> [=var. <i>nitidum</i>] | None | Native | Pepperwort |

| Scientific Name | Status | Origin | Common Name |
|--|--------|------------|-----------------------|
| <i>Logfia [=Filago] gallica</i> | None | Introduced | Narrowleaf cottonrose |
| <i>Lupinus bicolor</i> | None | Native | Miniature lupine |
| <i>Lupinus microcarpus</i> | None | Native | Chick lupine |
| <i>Lupinus succulentus</i> | None | Native | Arroyo lupine |
| <i>Malva nicaeensis</i> | None | Introduced | Bull mallow |
| <i>Marrubium vulgare</i> | None | Introduced | Horehound |
| <i>Matricaria discoidea</i> [= <i>Chamomilla suaveolens</i>] | None | Introduced | Pineapple weed |
| <i>Medicago polymorpha</i> | None | Introduced | California burclover |
| <i>Melilotus officinalis</i> | None | Introduced | Yellow sweetclover |
| <i>Micropus californicus</i> | None | Native | Cottonweed |
| <i>Pectocarya</i> sp. | None | Native | Pectocarya |
| <i>Plagiobothrys acanthocarpus</i> | None | Native | Popcorn flower |
| <i>Plantago lanceolata</i> | None | Introduced | English plantain |
| <i>Plectritis</i> sp. | None | Native | Seablush |
| <i>Psilocarphus</i> sp. | None | Native | Woollyheads |
| <i>Ranunculus californicus</i> | None | Native | Buttercup |
| <i>Ranunculus hebecarpus</i> | None | Native | Annual buttercup |
| <i>Rumex</i> sp. | None | Unknown | Dock |
| <i>Salsola tragus</i> | None | Introduced | Russian thistle |
| <i>Salvia columbariae</i> | None | Native | Chia sage |
| <i>Sanicula bipinnatifida</i> | None | Native | Purple sanicle |
| <i>Sanicula crassicaulis</i> | None | Native | Sanicle |
| <i>Silene gallica</i> | None | Introduced | Windmill pinks |
| <i>Silybum marianum</i> | None | Introduced | Milk thistle |
| <i>Sisymbrium altissimum</i> | None | Introduced | Tumble mustard |
| <i>Spergularia rubra</i> | None | Introduced | Red sand spurrey |
| <i>Stephanomeria pauciflora</i> | None | Native | Desert wire-lettuce |
| <i>Thysanocarpus laciniatus</i> var. <i>laciniatus</i> | None | Native | Fringepod |
| <i>Trifolium</i> sp. | None | Unknown | Clover |
| <i>Urtica urens</i> | None | Introduced | Dwarf nettle |
| <i>Verbena lasiostachys</i> | None | Native | Verbena |
| <i>Vicia villosa</i> | None | Introduced | Winter vetch |
| <i>Viola pedunculata</i> | None | Native | Johnny jump-up |

| Scientific Name | Status | Origin | Common Name |
|--|--------|------------|------------------------|
| Grasses – 14 species | | | |
| <i>Avena barbata</i> | None | Introduced | Slender wild oat |
| <i>Avena fatua</i> | None | Introduced | Wild oat |
| <i>Bromus diandrus</i> | None | Introduced | Ripgut brome |
| <i>Bromus hordeaceus</i> | None | Introduced | Soft chess brome |
| <i>Bromus madritensis</i> ssp. <i>Rubens</i> [= <i>B. rubens</i>] | None | Introduced | Red top brome |
| <i>Bromus tectorum</i> | None | Introduced | Cheat grass |
| <i>Cynodon dactylon</i> | None | Introduced | Bermuda grass |
| <i>Distichlis spicata</i> | None | Native | Saltgrass |
| <i>Elymus</i> [= <i>Leymus</i>] <i>triticoides</i> | None | Native | Creeping wild rye |
| <i>Festuca</i> [= <i>Vulpia</i>] <i>microstachys</i> | None | Native | Annual fescue |
| <i>Festuca</i> [= <i>Vulpia</i>] <i>myuros</i> | None | Introduced | Rattail sixweeks grass |
| <i>Hordeum murinum</i> | None | Introduced | Foxtail barley |
| <i>Hordeum vulgare</i> | None | Introduced | Barley |
| <i>Stipa</i> [= <i>Nassella</i>] <i>lepida</i> | None | Native | Foothill needlegrass |

7.0 Wildlife Inventory

7.1 Wildlife Survey Results

At least one hundred (100) animal species are listed that could potentially occur in the Study Area (Table 8). These include at least 3 amphibians, 6 reptiles, 70 birds, and 20 mammals. Small mammal trapping studies were beyond the scope of this report; however, several small mammal species are likely to occur. We provide this list as a guide to the wildlife observed in the Study Area and to the species that could potentially be present. Other species could occur as transients, particularly avian fauna.

Wildlife species detected in the Study Area include 41 birds and 3 mammals. Many songbirds breed and forage in the oak woodland and in the large cottonwood trees in the creek corridor. Many raptors were observed perching in the oak trees in the Study Area, including a pair of golden eagles, a pair of American kestrels, and a pair of red-tailed hawks. A Cooper’s hawk flew through the oak savannah, and a great horned owl flushed from the oaks in the southeast part of the Study Area. California ground squirrels are abundant in the annual grassland, and mule deer were observed foraging in the riparian habitat on the eastern boundary.

TABLE 8. WILDLIFE LIST At least 100 animal species have the potential to occur in the Study Area. The Special Status column indicates listing status of the organism under the Federal Endangered Species Act, the California Endangered Species Act, or by CDFW. Species observed at the site during our surveys are designated by the check symbol (✓) in the fourth column.

| Common Name | Scientific Name | Special Status | Found On-site | Habitat Type |
|---|--|---------------------------------------|---------------|--|
| Amphibians – 3 Species | | | | |
| California (Western) Toad | <i>Anaxyrus [=Bufo] boreas halophilus</i> | None | | Grassland, woodland |
| Monterey Ensatina | <i>Ensatina eschscholzii eschscholzii</i> | None | | Riparian, oak woodlands, grasslands |
| Sierran Treefrog [=Pacific Chorus Frog] | <i>Pseudacris sierra</i> [formerly <i>P. regilla</i>] | None | | Many habitats near water |
| Reptiles – 6 Species | | | | |
| Silvery [=California] Legless Lizard | <i>Anniella pulchra</i> | SSC | | Sandy soils in dunes, woodlands, coastal scrub |
| Western Yellow-bellied Racer | <i>Coluber constrictor mormon</i> | None | | Grasslands, open areas |
| California Alligator Lizard | <i>Elgaria multicarinata multicarinata</i> | None | | Open grassland, woodland, chaparral |
| California Kingsnake | <i>Lampropeltis getula californiae</i> | None | | Woodland, grassland, streams |
| Pacific Gopher Snake | <i>Pituophis catenifer catenifer</i> | None | | Woodland, grassland, rural |
| Coast Range [=Western] Fence Lizard | <i>Sceloporus occidentalis bocourtii</i> | None | | Wide range; variety of habitats |
| Birds – 70 Species | | | | |
| Cooper's Hawk | <i>Accipiter cooperii</i> | Special Animal ¹ (Nesting) | ✓ | Oak, riparian woodland |
| White-throated Swift | <i>Aeronautes saxatilis</i> | None | ✓ | Nests in cliffs |
| Red-winged Blackbird | <i>Agelaius phoeniceus</i> | None | ✓ | Marshes, fields |
| Western Scrub-Jay | <i>Aphelocoma californica</i> | None | ✓ | Oak, riparian woodlands |
| Golden Eagle | <i>Aquila chrysaetos</i> | Fully Protected | ✓ | Open or mountainous areas |
| Oak Titmouse | <i>Baeolophus inornatus</i> | Special Animal (Nesting) | ✓ | Oak woodland |
| Great Horned Owl | <i>Bubo virginianus</i> | None | ✓ | Woodland, grassland |
| Red-tailed Hawk | <i>Buteo jamaicensis</i> | None | ✓ | Open, semi-open country |
| Red-shouldered Hawk | <i>Buteo lineatus</i> | None | | Oak, riparian woodlands |
| Ferruginous Hawk | <i>Buteo regalis</i> | SSC | | Grasslands, open fields |
| California Quail | <i>Callipepla californica</i> | None | ✓ | Shrubby habitats |
| Anna's Hummingbird | <i>Calypte anna</i> | None | ✓ | Many habitats |
| Lawrence's Goldfinch | <i>Carduelis lawrencei</i> | Special Animal (Nesting) | ✓ | Oak woodlands, savanna |

¹ Special Animal refers to all of the animal taxa inventoried by the CNDDDB, regardless of their legal or protection status. Refer to discussion of Special Animals in Section 3.5.2.

| Common Name | Scientific Name | Special Status | Found On-site | Habitat Type |
|--------------------------|-------------------------------------|--------------------------|---------------|--|
| Lesser Goldfinch | <i>Carduelis psaltria</i> | None | ✓ | Riparian, oak woodlands |
| American Goldfinch | <i>Carduelis tristis</i> | None | | Weedy fields, woodlands |
| House Finch | <i>Carpodacus mexicanus</i> | None | ✓ | Riparian, grasslands, chaparral, and woodlands |
| Turkey Vulture | <i>Cathartes aura</i> | None | ✓ | Open country |
| Hermit Thrush | <i>Catharus guttatus</i> | None | | Woodland and brush |
| Swainson's Thrush | <i>Catharus ustulatus</i> | None | ✓ | Mixed woodlands |
| Killdeer | <i>Charadrius vociferous</i> | None | ✓ | Mud flats, stream banks |
| Northern Flicker | <i>Colaptes auratus</i> | None | ✓ | Woodlands |
| Band-tailed Pigeon | <i>Columba fasciata</i> | None | | Woodlands, urban trees |
| Western Wood-Pewee | <i>Contopus sordidulus</i> | None | | Riparian woodlands |
| American Crow | <i>Corvus brachyrhynchos</i> | None | | Many habitats, esp. urban |
| Pacific-slope Flycatcher | <i>Empidonax difficilis</i> | None | ✓ | Riparian, oak woodlands |
| Brewer's Blackbird | <i>Euphagus cyanocephalus</i> | None | | Open habitats |
| American Kestrel | <i>Falco sparverius</i> | None | ✓ | Open, semi-open country |
| Bullock's Oriole | <i>Icterus bullockii</i> | None | | Oak, riparian woodlands |
| Dark-eyed Junco | <i>Junco hyemalis</i> | None | | Oak woodland |
| Acorn Woodpecker | <i>Melanerpes formicivorus</i> | None | ✓ | Oak woodland |
| Lewis's Woodpecker | <i>Melanerpes lewis</i> | Special Animal (Nesting) | ✓ | Pine, riparian, oak woodlands |
| Wild Turkey | <i>Meleagris gallopavo merriami</i> | None | | Woodlands |
| Song Sparrow | <i>Melospiza melodia</i> | None | | Oak, riparian woodland |
| Northern Mockingbird | <i>Mimus polyglottos</i> | None | ✓ | Riparian, chaparral and woodlands. Also urban |
| Brown-headed Cowbird | <i>Molothrus ater</i> | None | | Rural areas, ranches |
| Ash-throated Flycatcher | <i>Myiarchus cinerascens</i> | None | ✓ | Open, arid habitats |
| Western Screech-Owl | <i>Otus kennicottii</i> | None | | Oak woodland |
| Cliff Swallow | <i>Petrochelidon pyrrhonota</i> | None | ✓ | Urban; open areas near water |
| Phainopepla | <i>Phainopepla nitens</i> | None | | Oak, riparian, scrub |
| Black-headed Grosbeak | <i>Pheucticus melanocephalus</i> | None | | Woodlands |
| Yellow-billed Magpie | <i>Pica nuttalli</i> | Special Animal (Nesting) | ✓ | Oak savanna |
| Nuttall's Woodpecker | <i>Picoides nuttallii</i> | Special Animal (Nesting) | ✓ | Oak, riparian woodlands |
| Downy Woodpecker | <i>Picoides pubescens</i> | None | | Oak, riparian woodlands |
| Hairy Woodpecker | <i>Picoides villosus</i> | None | | Oak, riparian woodlands |
| California Towhee | <i>Pipilo crissalis</i> | None | ✓ | Brushy habitats |
| Spotted Towhee | <i>Pipilo maculatus</i> | None | | Dense brushy areas |

| Common Name | Scientific Name | Special Status | Found On-site | Habitat Type |
|-----------------------------|-------------------------------------|----------------|---------------|--|
| Western Tanager | <i>Piranga ludoviciana</i> | None | ✓ | Oak, riparian woodlands |
| Chestnut-backed Chickadee | <i>Poecile hudsonica</i> | None | | Mixed woods |
| Bushtit | <i>Psaltriparus minimus</i> | None | ✓ | Woodlands, chaparral |
| Ruby-crowned Kinglet | <i>Regulus calendula</i> | None | | Oak, riparian woodlands |
| Black Phoebe | <i>Sayornis nigricans</i> | None | | Near water |
| Yellow-rumped Warbler | <i>Setophaga coronata</i> | None | | Woodlands, brush, open country |
| Black-throated Gray Warbler | <i>Setophaga nigrescens</i> | None | | Oak, riparian woodlands |
| Yellow Warbler | <i>Setophaga petechia brewsteri</i> | SSC | ✓ | Riparian woodlands |
| Townsend's Warbler | <i>Setophaga townsendii</i> | None | | Riparian, oak woodlands |
| Western Bluebird | <i>Sialia mexicana</i> | None | ✓ | Woodland near open areas |
| White-breasted Nuthatch | <i>Sitta carolinensis</i> | None | ✓ | Oak savannah, woodland |
| Eurasian Collared-Dove | <i>Streptopelia decaocto</i> | None | ✓ | Urban areas |
| Western Meadowlark | <i>Sturnella neglecta</i> | None | | Open habitats, grasslands |
| European Starling | <i>Sturnus vulgaris</i> | None | ✓ | Agricultural, livestock areas |
| Tree Swallow | <i>Tachycineta bicolor</i> | None | | Oak, riparian woodlands, open areas near water |
| Violet-green Swallow | <i>Tachycineta thalassina</i> | None | ✓ | Oak, riparian woodlands, open areas near water |
| House Wren | <i>Troglodytes aedon</i> | None | | Shrubby areas |
| American Robin | <i>Turdus migratorius</i> | None | ✓ | Streamsides, woodlands |
| Western Kingbird | <i>Tyrannus verticalis</i> | None | ✓ | Grasslands, savanna |
| Orange-crowned Warbler | <i>Vermivora celata</i> | None | | Oak, riparian woodlands |
| Warbling Vireo | <i>Vireo gilvus</i> | None | ✓ | Oak, riparian woodlands |
| Hutton's Vireo | <i>Vireo huttonii</i> | None | ✓ | Oak, riparian woodlands |
| Wilson's Warbler | <i>Wilsonia pusilla</i> | None | ✓ | Oak, riparian woodlands |
| Mourning Dove | <i>Zenaida macroura</i> | None | ✓ | Open and semi-open habitats |
| Mammals – 20 Species | | | | |
| Pallid Bat | <i>Antrozous pallidus</i> | SSC | | Riparian, woodland, urban |
| Coyote | <i>Canis latrans</i> | None | | Open woodlands, brushy areas, wide ranging. |
| Feral Cat | <i>Felis catus</i> | None | ✓ | Varied |
| Hoary Bat | <i>Lasiurus cinereus</i> | Special Animal | | Variety of habitats, roosts in foliage |
| Striped Skunk | <i>Mephitis mephitis</i> | None | | Mixed woods, brush, semi-open country |
| California Vole | <i>Microtus californicus</i> | None | | Grassland meadows |
| Long-tailed Weasel | <i>Mustela frenata</i> | None | | Grasslands |
| California Myotis | <i>Myotis californicus</i> | None | | Tunnels, hollow trees, buildings, bridges. |
| Mule Deer | <i>Odocoileus hemionus</i> | None | ✓ | Many habitats |

| Common Name | Scientific Name | Special Status | Found On-site | Habitat Type |
|----------------------------|---------------------------------|-----------------|---------------|--|
| California Mouse | <i>Peromyscus californicus</i> | None | | Oak woodland, chaparral |
| Deer Mouse | <i>Peromyscus maniculatus</i> | None | | All dry land habitats |
| Broad-footed Mole | <i>Scapanus latimanus</i> | None | | Grasslands, agricultural, in moist soils |
| California Ground Squirrel | <i>Spermophilus beecheyi</i> | None | ✓ | Grasslands |
| Brush Rabbit | <i>Sylvilagus bachmani</i> | None | | Brushy habitats |
| Brazilian Free-tailed Bat | <i>Tadarida brasiliensis</i> | None | | Variety of habitats; roosts in bridges, buildings, caves |
| American Badger | <i>Taxidea taxus</i> | SSC | | Open country |
| Valley Pocket Gopher | <i>Thomomys bottae</i> | None | | Variety of habitats |
| Gray Fox | <i>Urocyon cinereoargenteus</i> | None | | Chaparral, dry woodlands |
| Red Fox | <i>Vulpes vulpes</i> | None | | Forest and open country |
| San Joaquin Kit Fox | <i>Vulpes macrotis mutica</i> | FE ² | | Open grasslands, scrub |

8.0 Project Overview

8.1 General Discussion

The 218-acre Study Area consists of cropland, oak woodland, oak savannah, and riparian habitats. The proposed project is a General Plan amendment and Vesting Tentative Tract Map which will designate lots and an access road connecting with Wisteria Lane. Specific uses of the lots have not been proposed at this time. The site has multiple land use designations (Planned Industrial, residential Agriculture, and Parks and Open Space) and is subject to the City of Paso Robles Airport Land Use Plan Safety Zone’s 2-4. The lots would be primarily on cropland. The oak woodland and the mature cottonwoods in Huerhuero Creek provide breeding and foraging habitat for a wide variety of songbirds, raptors, and small wildlife. California ground squirrels are abundant in the cropland and oak savannah and provide an important food source for raptors. Sensitive resources detected in the Study Area include golden eagle, Cooper’s hawk, oak titmouse, Lawrence’s goldfinch, Lewis’s woodpecker, yellow-billed magpie, Nuttall’s woodpecker, and yellow warbler.

8.2 Regulatory Framework

8.2.1 CEQA guidance

The California Environmental Quality Act (CEQA) requires the lead agency to evaluate potential environmental effects of the Project. The lead agency must also identify other State and local agencies (known as responsible agencies) that will be issuing a discretionary approval subject to CEQA for an activity that is part of the Project. The following section of the State CEQA Guidelines provides general direction for the evaluation of biological resource impacts as a part of the environmental review of proposed Projects.

²FE = Federally listed endangered

CEQA Guidelines Section 15070 states that a Lead Agency shall prepare or have prepared a mitigated negative declaration for a Project subject to CEQA when the initial study shows that “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, or the initial study identifies potentially significant effects but revisions in the Project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and 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.”

The following definition of a significant effect is defined in Section 15382 of the CEQA Guidelines, “Significant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.”

8.2.2 *Federal and state resource protections*

The agencies that administer the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA) formally list plant and animal species determined to be Threatened or Endangered, and they have adopted regulations to implement these laws to protect such species.

Other federal statutes that provide protection for species and/or their habitats include, but are not limited to, the National Environmental Policy Act (NEPA), the Clean Water Act (for protection of federal wetlands), Bald and Golden Eagle Protection Act (BGEPA), Migratory Bird Treaty Act (MBTA), Executive Order 11990 (wetlands protection), and California Fish and Game Code Sections 1601, 1602, and 1603 (Streambed Alteration Agreements).

9.0 Potential Impacts to Biological Resources

Construction of the Project could affect common and special status species, nesting birds, oak trees, and cropland habitat. Buildable lots would be designated in what is currently cropland habitat. Remainder lots would be designated for areas encompassing oak woodland and ephemeral drainages. Riparian habitat is not expected to be impacted by the Project.

9.1 Potential Habitat Impacts

9.1.1 Cropland

The proposed Project would impact approximately 80 acres of cropland. The cropland is highly disturbed habitat that provides poor foraging habitat for songbirds, raptors, and small mammals. Depending on ground squirrel control practices, it provides foraging habitat for breeding golden eagles, which nest on private property west of the Study Area. Regular tilling of the cropland in the Study Area makes cropland an inconsistent resource for flora and fauna. This is not a sensitive habitat type and does not require mitigation, however several mature oak trees are scattered throughout the cropland. Impacts to these oak trees would require mitigation (refer to Section 10.2). Ground nesting birds such as Meadow lark could occur in dry grain crops. A survey for nesting birds is recommended prior to tree removal in the Study Area (refer to Sections 10.3 and 10.4.1).

9.1.2 Oak woodland

The proposed lot plan would avoid oak woodlands in buildable lots. Oak trees in the Study Area provide habitat for a wide variety of common and sensitive bird species, herpetofauna, bats, and small mammals. A survey for nesting birds, bats and legless lizards is recommended prior to any tree removal in the Study Area (refer to Sections 10.3 and 10.4.2). Impacts to oak trees require mitigation (refer to Section 10.2).

9.1.3 Oak savannah

Based on preliminary project plans, no impact to oak savannah would occur. The slope of the embankment on which oak savannah occurs is outside of proposed lots. However, impacts may occur to oaks located within the designated lots and road. Ground disturbance within one-and one-half the canopy diameter of oak trees, or removal of oak trees requires mitigation (refer to Section 10.2). Oak trees in the Study Area provide habitat for a wide variety of common and sensitive bird species, herpetofauna, bats, and small mammals. A survey for nesting birds, bats and legless lizards is recommended prior to any tree removal in the Study Area (refer to Sections 10.3 and 10.4).

9.1.4 Ephemeral drainage

Ephemeral drainages occur within the oak woodland habitats. No impacts to ephemeral drainages are proposed by the current plan.

9.1.5 Riparian

Impacts to riparian habitat are not expected to occur as proposed development will occur away from the channel and floodplain of Huerhuero Creek.

9.2 Potential Impacts to Oak Trees

The City of Paso Robles requires mitigation for removal of oak trees with a diameter at breast height (DBH) of 6 inches or greater. Diameter at breast is measured at 4.5 feet from the ground or, if the trunk is split below 4 feet, at the narrowest point below the split. Impacts include any ground disturbance within the critical root zone (CRZ), or any trimming of branches 4 inches in diameter or greater. The critical root zone (CRZ), as defined by the City of Paso Robles, is an area of root space that is within a circle circumscribed around the trunk of a tree using a radius of 1 foot per inch DBH, e.g., a 20-inch diameter tree has a CRZ with a radius of 20 feet as measured from the center of the tree (City of El Paso de Robles - Ordinance No. 835 N.S). This measurement often extends beyond the actual drip-line of the tree.

Oak trees could be impacted by the proposed Project.

9.3 Potential Impacts to Nesting Birds

Vegetation removal and construction activities associated with the proposed development could result in adverse impacts to nesting birds if conducted during nesting season (March 15 through August 15). Impacts to nesting birds are expected to be highest where oak trees are removed. Many songbird and raptor species nest in oak trees in the Study Area. The potential for oak tree removal to adversely affect nesting birds can be reduced (see Sections 10.3 and 10.4).

9.4 Potential Impacts to Special Status Species

9.4.1 *Special status plants*

Special status plants were not found in the Study Area and are not expected to occur. The proposed Project would affect cropland habitat, not areas where special status plants could occur.

9.4.2 *Silvery legless lizard*

Silvery legless lizards could occur in the Study Area in areas of sandy soil and leaf litter in oak woodland and oak savannah. Potential impacts to silvery legless lizards can be reduced if pre-construction surveys are conducted (refer to Section 10.4).

9.4.3 *Special status birds*

Nuttall's woodpecker, oak titmouse, yellow-billed magpie, Lawrence's goldfinch, all nest or are likely to nest in oak trees in the Study Area. Cooper's hawk was observed in the Study Area, and could potentially nest there. These species could be adversely effected by the removal of oak trees. Other special status birds are known from the region, but are unlikely to nest onsite, such as Swainson's hawk. Lewis' woodpecker and ferruginous hawk are winter residents, the Project could result in a net loss of wintering habitat in the Paso Robles region.

Golden eagles nest approximately 1,500 feet west of the proposed lots, but could nest closer in the future. They forage in the cropland and oak savannah habitats in the Study Area. Loss of foraging habitat may have cumulative impacts in the Paso Robles region. The Project is not expected to cause injury to golden eagles or any nest abandonment or any substantial interference with breeding or sheltering behavior. Potential impacts to golden eagles can be reduced (refer to Section 10.4).

9.4.4 *Preconstruction surveys are recommended prior to activities that affect trees during the nesting season, March 15 to August 15 (refer to Section 10.3 and 10.4). American badger*

American badger could occur in fallow cropland, along dirt roads, or in oak savannah habitat in the Study Area. Removal of cropland habitat and other construction activities associated with the Project could impact badgers. Preconstruction surveys are recommended to reduce potential impacts to badgers (refer to Section 10.4).

9.4.5 *Bats*

Pallid bat and hoary bat are special status bat species that could occur in the Study Area. Both are known to roost in tree hollows. The Study Area does contain large trees with hollows that may be used for roosting habitat. Maternal bat colonies are protected by the California Department of Fish and Wildlife but are not expected to occur in the Study Area. Removal of oak trees and snags could affect pallid and hoary bats, if present. Adverse impacts to special status bats and maternal bat colonies can be avoided (refer to Section 10.4).

9.4.6 *San Joaquin kit fox*

Cropland and oak savanna habitat in the Study Area is potential habitat for kit fox, and is within the area designated by the CDFW as a 3 to 1 mitigation area. A San Joaquin kit fox habitat evaluation form should be prepared once the project plans are finalized to determine appropriate compensatory mitigation. Standard County mitigation and protection measures for SJKF are provided in Section 10.4.6.

10.0 Recommendations and Mitigations

Oak habitats and special status species are present in the Study Area. This section provides recommendations and mitigations to reduce the effect of the Project on biological resources. Where potentially adverse impacts to biological resources could occur during construction of the Project or due to the presence of the Project, we provide biological resource (BR) potential mitigation measures designed to offset the adverse effect.

10.1 Habitats

We provide the following recommendations to avoid, minimize and/or mitigate potential Project effects on habitats. Mitigation recommendations provided in Sections 10.3 and 10.4 address potential adverse effects of habitat removal on special status species and nesting birds.

10.1.1 Cropland

Loss of cropland habitat usually does not require mitigation except where it affects special status species or important wildlife populations. Refer to Sections 10.3 and 10.4 for mitigation recommendations for special status species that could occur in cropland habitat.

10.1.2 Oak woodland

The proposed project would not affect oak woodland habitat. Impacts to individual oak trees could occur, and mitigation recommendations are provided in Section 10.2.

10.2 Individual Oak Tree Impacts

Impacts to or removal of native oak trees in the City of Paso Robles can typically be mitigated by planting additional trees on-site. Large mature coast live oaks (dbh greater than 25 inches) with high aesthetic and habitat significance should be preserved wherever possible in subsequent plans to develop the property. Protection measures should be implemented to minimize impacts, and protect the tree for the long-term.

If project construction requires impacts or removal of oak trees on the Property, or if work is conducted within 50 feet of the oak canopy, the following standard mitigation recommendations shall be implemented, as appropriate.

- BR-1.** The canopy edge and trunk location of oak trees within 50 feet of proposed construction on the Property shall be surveyed by a licensed land surveyor and placed on all plan sets. Tree assessments should be conducted by a certified arborist or qualified botanist. Data collected for the tree shall include diameter at breast height (4.5 feet) of each stem/trunk, canopy diameter, tree height, tree health, and habitat notes (cavities for birds or bats), raptor nests, wood rat nests, and unique features. The tree map shall be used to determine impacts to trees from the project and will inform the mitigation plan.
- BR-2.** Impacts to the oak canopy or critical root zones (CRZ) should be avoided where practicable. Impacts include pruning, ground disturbance within the CRZ, and trunk damage.
- BR-3.** Prior to ground breaking, tree protection fencing shall be installed as close to the outer limit of the CRZ as practicable for construction operations. The fencing shall be in

place throughout the duration of the project, and removed only under the direction of the project environmental monitor or arborist, while demolition is in progress.

- BR-4.** Trenching within the CRZ must be approved by the project arborist, and shall be done by hand or with an air spade. Any roots exposed by demolition shall be treated by a tree care specialist and covered with a layer of soil to match existing topography.
- BR-5.** Landscape material within the CRZ must be of native, drought tolerant species. Lawns are prohibited within the CRZ.
- BR-6.** Paving adjacent to and within the CRZ shall utilize interlocking pavers or equivalent that will allow proper infiltration of water and exchange of oxygen to the root zone of the tree.
- BR-7.** Tree removal, if approved, shall commence within 30 days of inspection by a qualified biologist to determine the tree is not being used by nesting birds or bats at the time of removal.
- BR-8.** Impacts to oak trees shall be assessed by a licensed arborist or qualified botanist prior to final inspection, and reported to the County.
- BR-9.** Impacts to oaks shall be mitigated by planting additional trees on site. Any oak tree with a dbh of five inches or greater shall require mitigation. Oaks removed shall be replaced in kind at a 4:1 ratio. Impacts to oaks shall be mitigated by planting additional oak trees, in kind, at a 2:1 ratio. Replacement trees shall be of one gallon size, of local origin, and of the same species as was impacted. Replacement trees shall be seasonally maintained (browse protection, weed reduction and irrigation, as needed) and monitored annually for at least seven years.
- BR-10.** Replacement trees should be seasonally maintained (browse protection, weed reduction and irrigation, as needed) and monitored annually for at least 7 years. Replacement trees shall be the same species as the tree impacted or removed, and of local origin.

10.3 Nesting Birds

Migratory non-game native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take (as defined therein) of all native birds and their active nests, including raptors and other migratory non-game birds (as listed under the Federal MBTA). The proposed Project could impact nesting birds if construction occurs between March 15 and August 15.

- BR-11.** Within one week of ground disturbance or tree removal/trimming activities, if work occurs between March 15 and August 15, nesting bird surveys shall be conducted. To avoid impacts to nesting birds, grading and construction activities that affect trees and grasslands shall not be conducted during the breeding season from March 1 to August 31. If construction activities must be conducted during this period, nesting bird surveys shall take place within one week of habitat disturbance. If surveys do not locate nesting birds, construction activities may be conducted. If nesting birds are located, no construction activities shall occur within 100 feet of nests until chicks are fledged. Construction activities shall observe a 300-foot buffer for active raptor nests. A

preconstruction survey report shall be submitted to the lead agency immediately upon completion of the survey. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements. A map of the Project site and nest locations shall be included with the report. The Project biologist conducting the nesting survey shall have the authority to reduce or increase the recommended buffer depending upon site conditions.

10.4 Avoidance, Minimization, and Mitigation for Special Status Species

10.4.1 Special status plants

No impacts to special status plants are expected from the proposed project; therefore no mitigations are required.

10.4.2 Silvery legless lizard

Silvery legless lizard could occur in the Study Area in areas of sandy soil and leaf litter. To minimize potential impacts to this species, the following mitigation measure is recommended:

BR-12. A focused preconstruction survey for legless lizards shall be conducted in proposed work areas immediately prior to ground-breaking activities that would affect potentially suitable habitat, as determined by the project biologist. The preconstruction survey shall be conducted by a qualified biologist familiar with legless lizard ecology and survey methods, and with approval from California Department of Fish and Game to relocate legless lizards out of harm's way. The scope of the survey shall be determined by a qualified biologist and shall be sufficient to determine presence or absence in the project areas. If the focused survey results are negative, a letter report shall be submitted to the County, and no further action shall be required. If legless lizards are found to be present in the proposed work areas the following steps shall be taken:

- Legless lizards shall be captured by hand by the project biologist and relocated to an appropriate location well outside the project areas.
- Construction monitoring shall be required for all new ground-breaking activities located within legless lizard habitat. Construction monitors shall capture and relocate horned lizards as specified above.
- A letter report shall be submitted to the County and CDFW within 30 days of legless lizard relocation, or as directed by CDFW.

10.4.3 Special status birds

In order to reduce the potential for disturbance of special status birds during nesting season, the applicant shall implement BR-11 one week prior to ground disturbance or tree pruning activities that occur during the nesting season (refer to Section 10.3). If nests of sensitive birds are identified in the work area, the following additional mitigation measures shall be implemented:

BR-13. Occupied nests of special status bird species shall be mapped using GPS or survey equipment. Work shall not be allowed within a 100 foot buffer for songbirds and 300 for nesting raptors while the nest is in use. The buffer zone shall be delineated on the ground with orange construction fencing where it overlaps work areas

BR-14. Occupied nests of special status bird species that are within 100 feet of project work areas shall be monitored at least every two weeks through the nesting season to document nest success and check for project compliance with buffer zones. Once burrows or nests are deemed inactive and/or chicks have fledged and are no longer dependent on the nest, work may commence in these areas.

10.4.4 American badger

American badger could occur in the project areas. Project activities including grading and other excavation work could result in take of American badger adults or young, or disturbance of natal dens and abandonment by adult badgers. To reduce this potential impact the following measure is recommended.

BR-15. A preconstruction survey shall be conducted within thirty days of beginning work on the site to identify if badgers are using the site. The results of the survey shall be sent to the project manager and the County of San Luis Obispo. If the pre-construction survey finds potential badger dens, they shall be inspected to determine whether they are occupied. The survey shall cover the entire property, and shall examine both old and new dens. If potential badger dens are too long to completely inspect from the entrance, a fiber optic scope shall be used to examine the den to the end. Inactive dens may be excavated by hand with a shovel to prevent re-use of dens during construction. If badgers are found in dens on the property between February and July, nursing young may be present. To avoid disturbance and the possibility of direct take of adults and nursing young, and to prevent badgers from becoming trapped in burrows during construction activity, no grading shall occur within 100 feet of active badger dens between February and July. Between July 1st and February 1st all potential badger dens shall be inspected to determine if badgers are present. During the winter badgers do not truly hibernate, but are inactive and asleep in their dens for several days at a time. Because they can be torpid during the winter, they are vulnerable to disturbances that may collapse their dens before they rouse and emerge. Therefore, surveys shall be conducted for badger dens throughout the year. If badger dens are found on the property during the pre-construction survey, the CDFW wildlife biologist for the area shall be contacted to review current allowable management practices

10.4.5 Bats

Roosting bats and/or maternal bat colonies may be present in trees with appropriate cavities or loose bark.

BR-16. Prior to removal of any trees over 20 inches DBH, a survey shall be conducted by a qualified biologist to determine if any of the trees proposed for removal or trimming harbor sensitive bat species or maternal bat colonies. If a non-maternal roost is found, the qualified biologist, with prior approval from California Department of Fish and Game, will install one-way valves or other appropriate passive relocation method. For each occupied roost removed, one bat box shall be installed in similar habitat and should have similar cavity or crevices properties to those which are removed, including access, ventilation, dimensions, height above ground, and thermal conditions. Maternal bat colonies may not be disturbed.

10.4.6 San Joaquin kit fox

The proposed General Plan Amendment and Vesting Tentative Tract Map would create lots on cropland habitat. Dry grain cropland is a habitat type that San Joaquin kit fox (SJKF) can occupy. The following standard mitigation measures for San Joaquin kit fox would apply to projects built in the Study Area.

A San Joaquin kit fox habitat evaluation has been prepared for the project that identifies specific habitat impacts and determines appropriate compensatory mitigation (as per BR-14). The SJKF habitat evaluation form (attached as Exhibit A) includes an exhibit map that delineates areas of the project that will be impacted and/or removed as usable SJKF habitat. Only areas that will be impacted by the project and/or removed as habitat for SJKF are included in the mitigation requirement on the kit fox evaluation form. The final area of impact was determined by the project engineer and is shown in the Project Summary table in Exhibit A.

The SJKF habitat evaluation form produced a score of 65 for the project site. This score is equivalent to a 2 to 1 mitigation ratio for mitigation acres to impacted acres (within the 2 to 1 mitigation requirement of 60 to 69 score result bracket). Therefore, the mitigation requirement would be two-times the impacted area (55.84 acres), or 111.68 acres, or 111.68 SJKF mitigation credits.

Additional standard mitigation measures provided below (BR-18 through BR-27) contribute to reducing impacts to San Joaquin kit fox.

BR-17. Prior to issuance of grading and/or construction permits, the applicant shall submit evidence to the City of Paso Robles, Community Development Department (City) that states that one or a combination of the following three San Joaquin kit fox mitigation measures has been implemented:

- a. Provide for the protection in perpetuity, through acquisition of fee or a conservation easement of **111.68** acres of suitable habitat in the kit fox corridor area (e.g. within the San Luis Obispo County kit fox habitat area, northwest of Highway 58), either on-site or off-site, and provide for a non-wasting endowment to provide for management and monitoring of the property in perpetuity. Lands to be conserved shall be subject to the review and approval of the California Department of Fish and Wildlife (Department) and the City.

This mitigation alternative (a.) requires that all aspects of this program must be in place before City permit issuance or initiation of any ground disturbing activities.

- b. Deposit funds into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the kit fox corridor area within San Luis Obispo County, and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (b) above, can be completed by providing funds to The Nature Conservancy (TNC) pursuant to the Voluntary Fee-Based Compensatory Mitigation Program (Program). The Program was established in agreement between the Department and TNC to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The fee, payable to “The Nature Conservancy”, would total

\$279,200. This fee is calculated based on the current cost-per-unit of \$2,500 per acre of mitigation, which is scheduled to be adjusted to address the increasing cost of property in San Luis Obispo County; your actual cost may increase depending on the timing of payment. This fee must be paid after the Department provides written notification about your mitigation options but prior to City permit issuance and initiation of any ground disturbing activities.

- c. Purchase **111.68** credits in a Department-approved conservation bank, which would provide for the protection in perpetuity of suitable habitat within the kit fox corridor area and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (c) above, can be completed by purchasing credits from the Palo Prieto Conservation Bank. The Palo Prieto Conservation Bank was established to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The cost for purchasing credits is payable to the owners of The Palo Prieto Conservation Bank, and would total **\$279,200**. This fee is calculated based on the current cost-per-credit of \$2500 per acre of mitigation. The fee is established by the conservation bank owner and may change at any time. Your actual cost may increase depending on the timing of payment. Purchase of credits must be completed prior to City permit issuance and initiation of any ground disturbing activities.

BR-18. Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the City. The retained biologist shall perform the following monitoring activities:

- i. Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction, the biologist shall conduct a pre-activity (i.e. preconstruction) survey for known or potential kit fox dens and submit a letter to the City reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed), as applicable, to address any kit fox activity within the project limits.
- ii. The qualified biologist shall conduct weekly site visits during site-disturbance activities (i.e. grading, disking, excavation, stock piling of dirt or gravel, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BR-19 through BR-28. Site disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason (see BR-19iii). When weekly monitoring is required, the biologist shall submit weekly monitoring reports to the City.
- iii. Prior to or during project activities, if any observations are made of San Joaquin Kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. harm or death) to kit fox. At the time a den is discovered, the qualified

biologist shall contact USFWS and the CDFW for guidance on possible additional kit fox protection measures to implement and whether or not a Federal and/or State incidental take permit is needed. If a potential den is encountered during construction, work shall stop until such time the USFWS determines it is appropriate to resume work.

If incidental take of kit fox during project activities is possible, **before project activities commence**, the applicant must consult with the USFWS. The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.

iv. In addition, the qualified biologist shall implement the following measures:

1. Within 30 days prior to initiation of site disturbance and/or construction, fenced exclusion zones shall be established around all known and potential kit fox dens. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of the following distance measured outward from the den or burrow entrances:
 - Potential kit fox den: 50 feet
 - Known or active kit fox den: 100 feet
 - Kit fox pupping den: 150 feet
2. All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.
3. If kit foxes or known or potential kit fox dens are found on site, daily monitoring by a qualified biologist shall be required during ground disturbing activities.

Monitoring: Required prior to issuance of a grading and/or construction permit. Compliance will be verified by the City Planning Division.

BR-19. Prior to issuance of grading and/or construction permits, the applicant shall clearly delineate the following as a note on the project plans: “*Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox*”. Speed limit signs shall be installed on the project site within 30 days prior to initiation of site disturbance and/or construction.

BR-20. During the site disturbance and/or construction phase, grading and construction activities after dusk shall be prohibited unless coordinated through the City, during which additional kit fox mitigation measures may be required.

- BR-21.** Prior to issuance of grading and/or construction permit and within 30 days prior to initiation of site disturbance and/or construction, all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox's life history, all mitigation measures specified by the City, as well as any related biological report(s) prepared for the project. The applicant shall notify the City shortly prior to this meeting. A kit fox fact sheet shall also be developed prior to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.
- BR-22.** During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavations, steep-walled holes and trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped kit fox. Any kit fox so discovered shall be allowed to escape before field activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.
- BR-23.** During the site-disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved. If necessary, the pipe may be moved only once to remove it from the path of activity, until the kit fox has escaped.
- BR-24.** During the site-disturbance and/or construction phase, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of only in closed containers. These containers shall be regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
- BR-25.** Prior to, during and after the site-disturbance and/or construction phase, use of pesticides or herbicides shall be in compliance with all local, State and Federal regulations. This is necessary to minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.
- BR-26.** During the site-disturbance and/or construction phase, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and City. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the USFWS and CDFW by telephone. In addition, formal notification shall be provided in writing within three working days of

the finding of any such animal(s). Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to CDFW for care, analysis, or disposition.

BR-27. Prior to final inspection, or occupancy, whichever comes first, should any long internal or perimeter fencing be proposed or installed, the applicant shall do the following to provide for kit fox passage:

- i. If a wire strand/pole design is used, the lowest strand shall be no closer to the ground than 12 inches.
- ii. If a more solid wire mesh fence is used, 8" x 12" openings near the ground shall be provided every 100 yards

Upon fence installation, the applicant shall notify the City to verify proper installation. Any fencing constructed after issuance of a final permit shall follow the above guidelines

Monitoring (San Joaquin Kit Fox Measures BR-17 to BR-27): Compliance will be verified by the City of Paso Robles, Planning Division in consultation with the California Department of Fish and Wildlife. As applicable, each of these measures shall be included on construction plans.

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12.0 Photographs



Photo 1. View south of grazed cropland and adjacent riparian habitat lining Huerhuero Creek. Photo taken 1/22/14.



Photo 2. View west of the blue oak dominated woodland in the western portion of the Study Area. Photo taken 4/17/14.



Photo 3. View south of cropland and Huerhuero Creek. Photo taken 4/17/14.

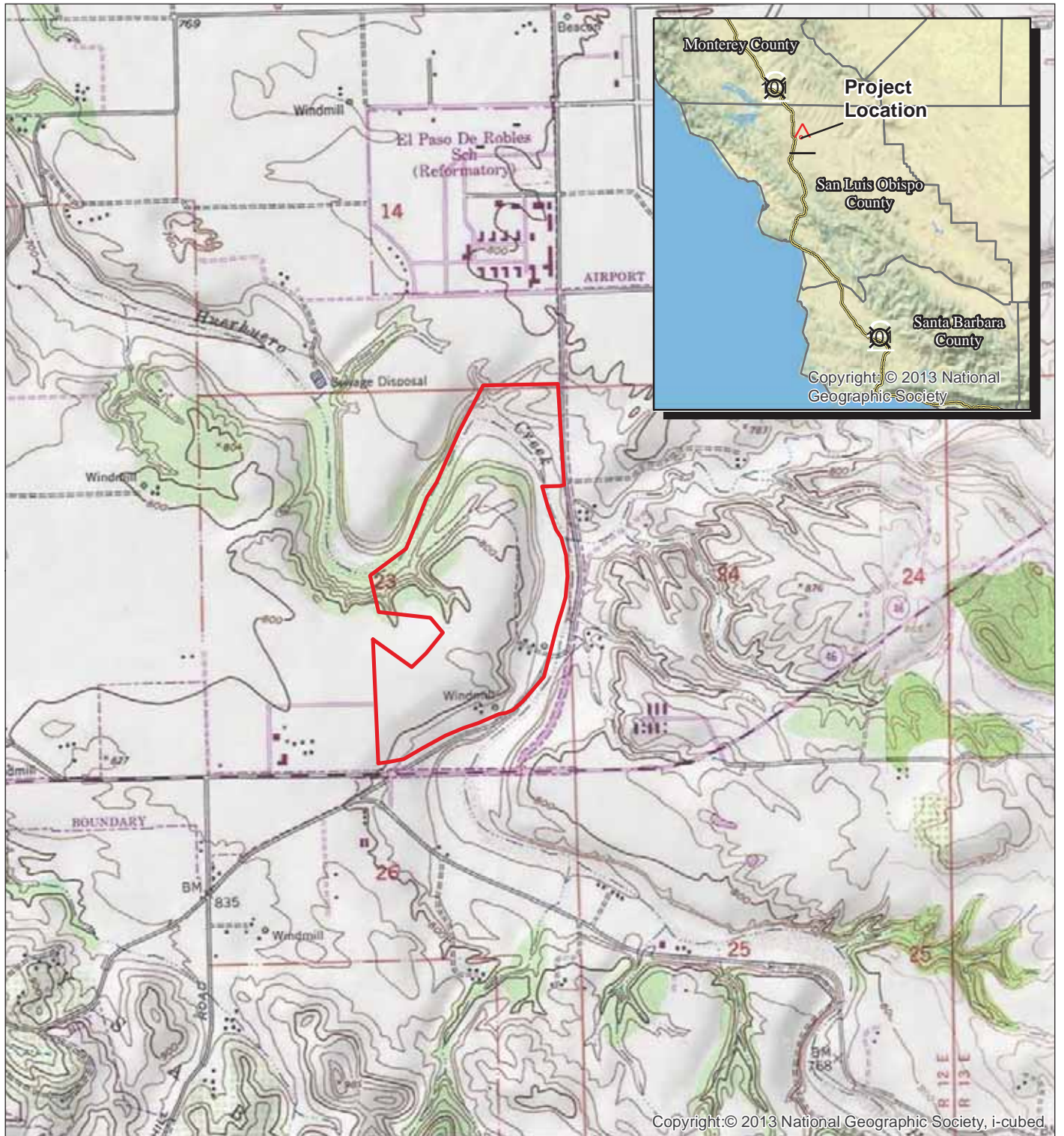


Photo 4. View north of planted cropland near the center of the Study Area. Photo taken 5/22/14.

13.0 Figures

- Figure 1. USGS Topographic Map
- Figure 2. Aerial Photograph
- Figure 3. USDA Soil Map Units
- Figure 4. CNDDDB and USFWS Critical Habitat Map
- Figure 5. Habitat Map

Figure 1. USGS Topographic Map



Legend



 Study Area



Figure 2. Aerial Photograph



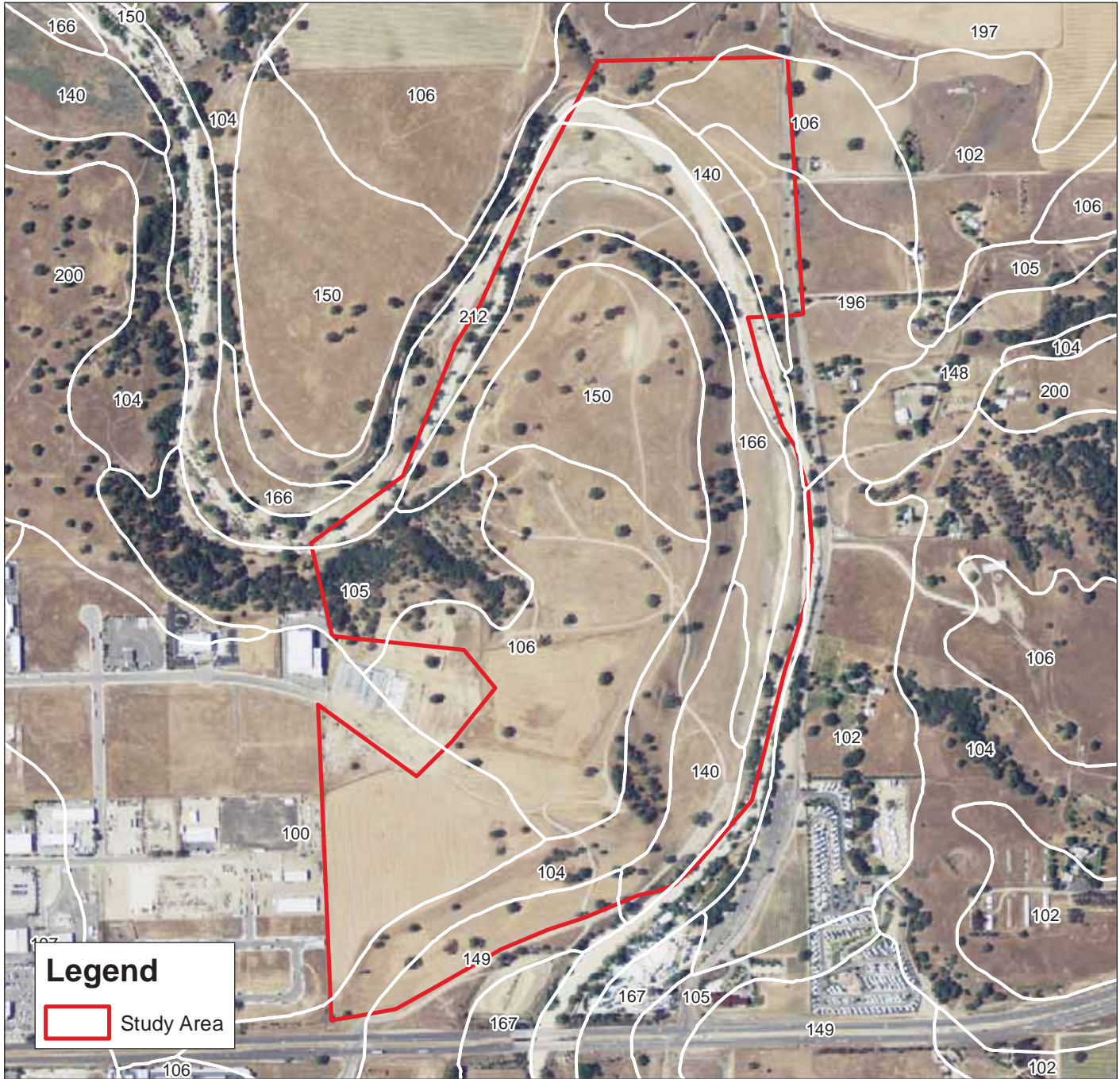
Legend

 Study Area

0 500 1,000 2,000 Feet



Figure 3. USDA Soils Map



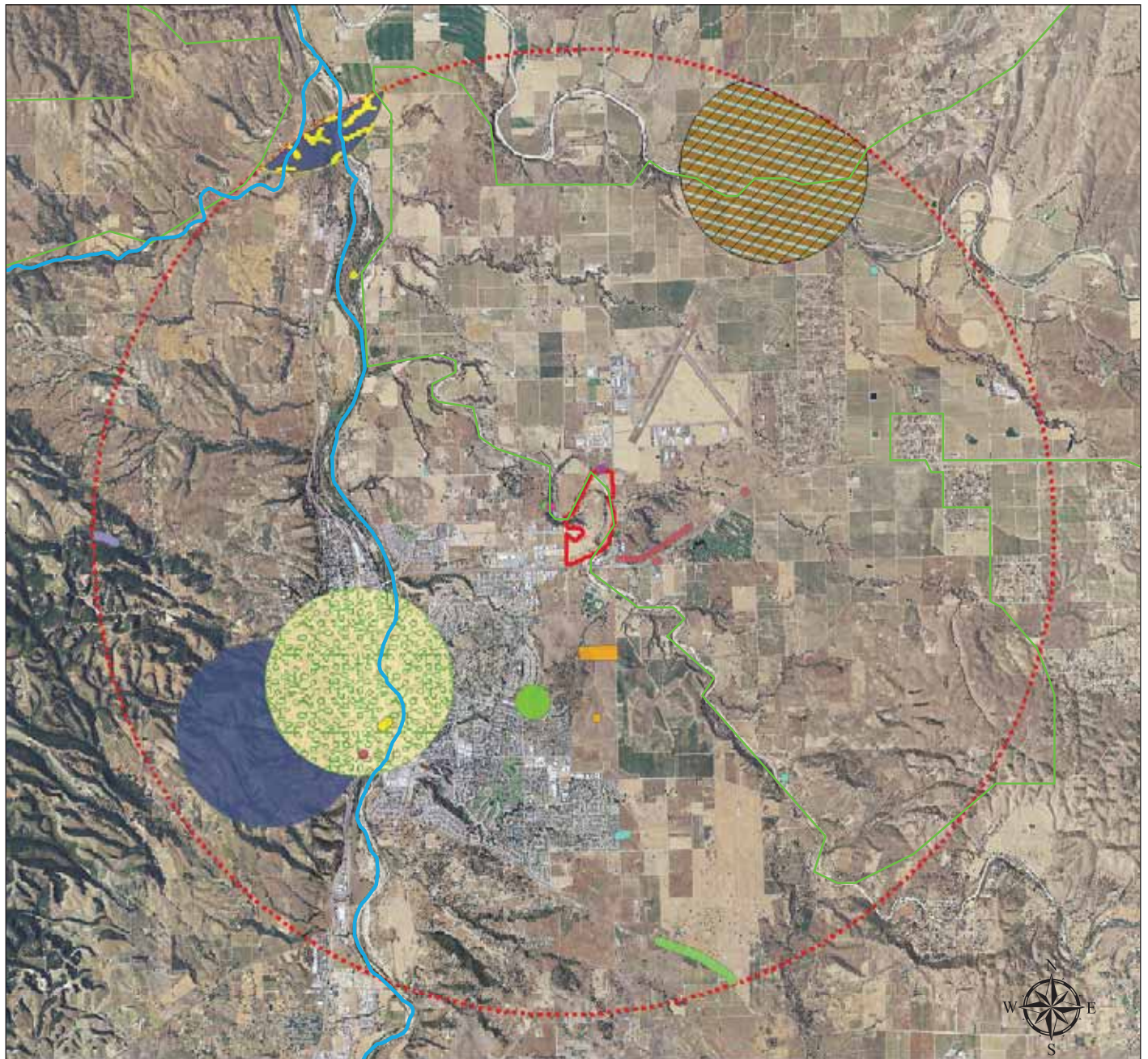
- 100: Arbuckle fine sandy loam, 0 to 2 percent slopes
- 102: Arbuckle-Positas complex, 9 to 15 percent slopes
- 104: Arbuckle-Positas complex, 30 to 50 percent slopes
- 105: Arbuckle-Positas complex, 50 to 75 percent slopes
- 106: Arbuckle-San Ysidro complex, 2 to 9 percent slopes
- 140: Elder loam, 0 to 5 percent slopes, flooded

- 148: Hanford and Greenfield soils, 2 to 9 percent slopes
- 149: Hanford and Greenfield gravelly sandy loams, 0 to 2 percent slopes
- 150: Hanford and Greenfield gravelly sandy loams, 2 to 9 percent slopes
- 166: Metz loamy sand, 0 to 5 percent slopes
- 167: Metz-Tujunga complex, occasionally flooded, 0 to 5 percent slopes
- 196: San Ysidro sandy loam, 2 to 9 percent slopes
- 197: San Ysidro loam, 0 to 2 percent slopes
- 200: Sesame sandy loam, 9 to 30 percent slopes
- 212: Xerofluvents-Riverwash association

0 500 1,000 2,000 Feet



Figure 4. CNDDDB & FWS Critical Habitat Map



FWS Critical Habitat

- Steelhead critical habitat
- Vernal pool fairy shrimp critical habitat

CNDDDB

- Atascadero June beetle
- Jared's pepper-grass
- Lemmon's jewelflower

- Lompoc grasshopper
- San Joaquin kit fox
- San Joaquin pocket mouse
- San Luis Obispo owl's-clover
- Santa Lucia dwarf rush
- golden eagle
- least Bell's vireo

- oval-leaved snapdragon
- round-leaved filaree
- shining navarretia
- vernal pool fairy shrimp
- western pond turtle
- western spadefoot
- woodland woollythreads

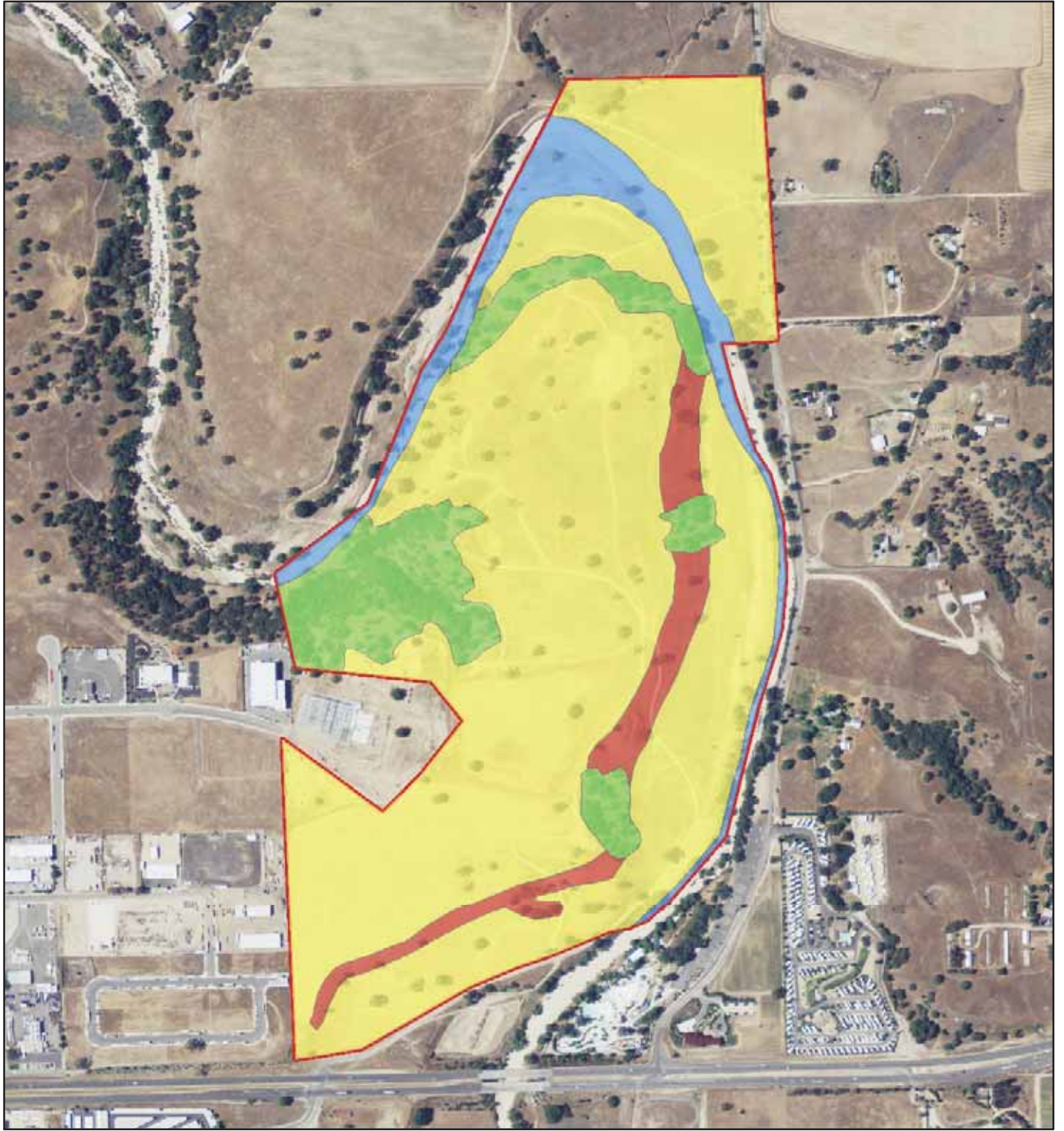
 5 Mile Radius

 Study Area


0 1 2 4 Miles



Figure 5. Habitat Map



0 500 1,000 2,000 Feet

 Cropland  Oak Savannah  Oak Woodland  Riparian  Study Area



14.0 Exhibit A

San Joaquin Kit Fox Habitat Evaluation Form

Kit Fox Habitat Evaluation Form

Cover Sheet

Project Name Vesting Tentative Tract 3069

Project Location*

Wisteria Lane
Paso Robles

*Include project vicinity map and project boundary on copy of U.S.G.S. 7.5. minute map (size may be reduced)

U.S.G.S. Quad Map Name Paso Robles

Lat/Long or UTM coordinates (if available) N 35.6513 °
W 120.6443 °

Project Description:

General Plan Amendment / 13 Lot Subdivision to Facilitate Future Commercial / Industrial Development

Project Size: **55.84 acres** Amount of Kit Fox Habitat Affected: **55.84 acres**

Quantity of WHR Habitat Types Impacted (i.e. – 2 acres annual grassland, 3 acres blue oak woodland)

WHR type **Fallow ag or grain or grain/alfalfa crops** **55.84 acres**

Comments: Dry farmed grain operations onsite since 2008.

The attached Kit Fox Mitigation Area Map and Project Summary table show the project areas of impact that require mitigation for kit fox.

A general site map showing roads and lots is also included.

Form Completed by:



Revised 03/02

San Joaquin Kit Fox Habitat Evaluation Form

Is the project within 10 miles from a recorded San Joaquin kit fox observation or within contiguous suitable habitat as defined in Question 2(A-E)?

YES – Continue with evaluation form

NO – Evaluation form/surveys are not necessary

1. Importance of the project area relative to Recovery Plan for Upland Species of the San Joaquin Valley, California (Williams et al, 1998).
 - A. Project would block or degrade an existing corridor linking core populations or isolate a subpopulation (20).**
 - B. Project is within a core population (15)
 - C. Project area is identified within satellite population (12)
 - D. Project area is within a corridor linking satellite populations (10)
 - E. Project area is not within any of the previously described areas but is within known kit fox range (5)

2. Habitat characteristics of the project area.
 - A. Annual grassland or saltbush scrub present >50% of site (15)
 - B. Grassland or saltbush scrub present but comprises <50% of project area (10)
 - C. Oak savannah present on >50% of site (8)
 - D. Fallow ag fields or grain/alfalfa crops (7)**
 - E. Orchards/vineyards (5)
 - F. Intensively maintained row crops or suitable vegetation absent (0)

3. Isolation of project area
 - A. Project area surrounded by contiguous kit fox habitat as described in Question 2a-e (15)
 - B. Project area adjacent to at least 40 acres of contiguous habitat or part of an existing corridor (10)**
 - C. Project area adjacent to <40 acres of habitat but linked by existing corridor (i.e.-river, canal, aqueduct) (7)
 - D. Project area surrounded by ag but less than 200 yards from habitat (5)
 - E. Project area completely isolated by row crops or development and is greater than 200 yards from potential habitat (0)

4. Potential for increased mortality as a result of the project implementation. Mortality may come from direct (e.g. – construction related) or indirect (e.g. –vehicle strikes due to increases in post development traffic) sources.
 - A. Increase in mortality likely (10)
 - B. Unknown mortality effects (5)**
 - C. No long term effect on mortality (0)

5. Amount of potential kit fox habitat affected
 - A. > 320 acres (10)
 - B. 160-319 acres (7)
 - C. 80-159 acres (5)
 - D. 40-79 acres (3)**
 - E. <40 acres (1)

- 6. Results of project implementation
 - A. Project site will be permanently converted and will no longer support foxes (10)**
 - B. Project area will be temporarily impacted but will require periodic disturbance for ongoing maintenance (7)
 - C. Project area will be temporarily impacted and no maintenance necessary (5)
 - D. Project will result in changes to agricultural crops (2)
 - E. No habitat impacts (0)

- 7. Project shape
 - A. Large block (10)**
 - B. Linear with >40 foot right-of way (5)
 - C. Linear with <40 foot right-of-way (3)

- 8. Have San Joaquin kit foxes been observed within 3 miles of the project area within the last 10 years?
 - A. Yes (10)
 - B. No (0)**

Scoring

| | |
|---------------------------------|-----------|
| 1. Recovery importance | 20 |
| 2. Habitat condition | 7 |
| 3. Isolation | 10 |
| 4. Mortality | 5 |
| 5. Quantity of habitat impacted | 3 |
| 6. Project results | 10 |
| 7. Project shape | 10 |
| 8. Recent observations | <u>0</u> |
| Total | 65 |

Revised 03/02-lpd

13.0 Figures

- Figure 1. USGS Topographic Map
- Figure 2. Aerial Photograph
- Figure 3. USDA Soil Map Units
- Figure 4. CNDDDB and USFWS Critical Habitat Map
- Figure 5. Habitat Map

Figure 1. USGS Topographic Map

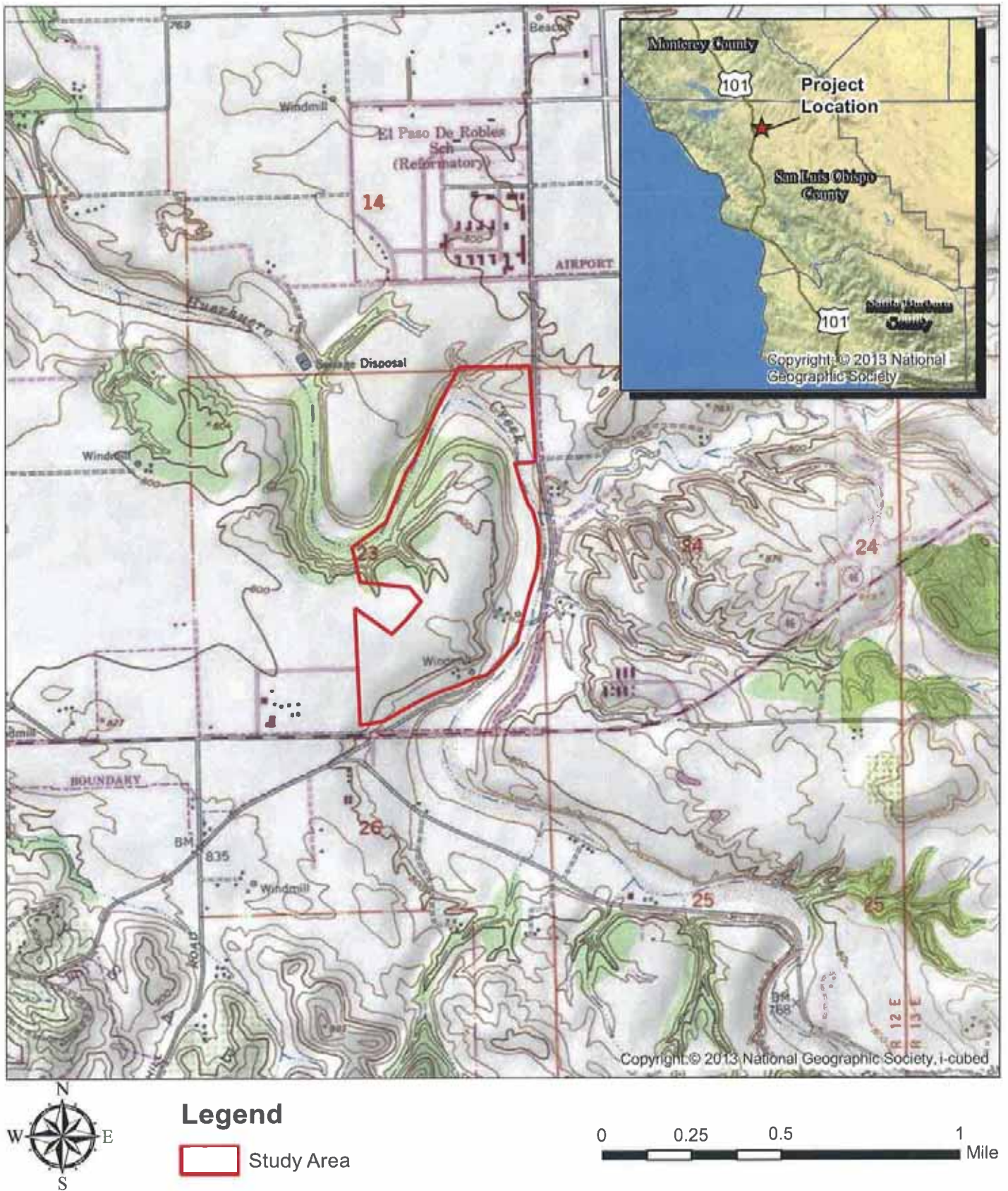


Figure 2. Aerial Photograph



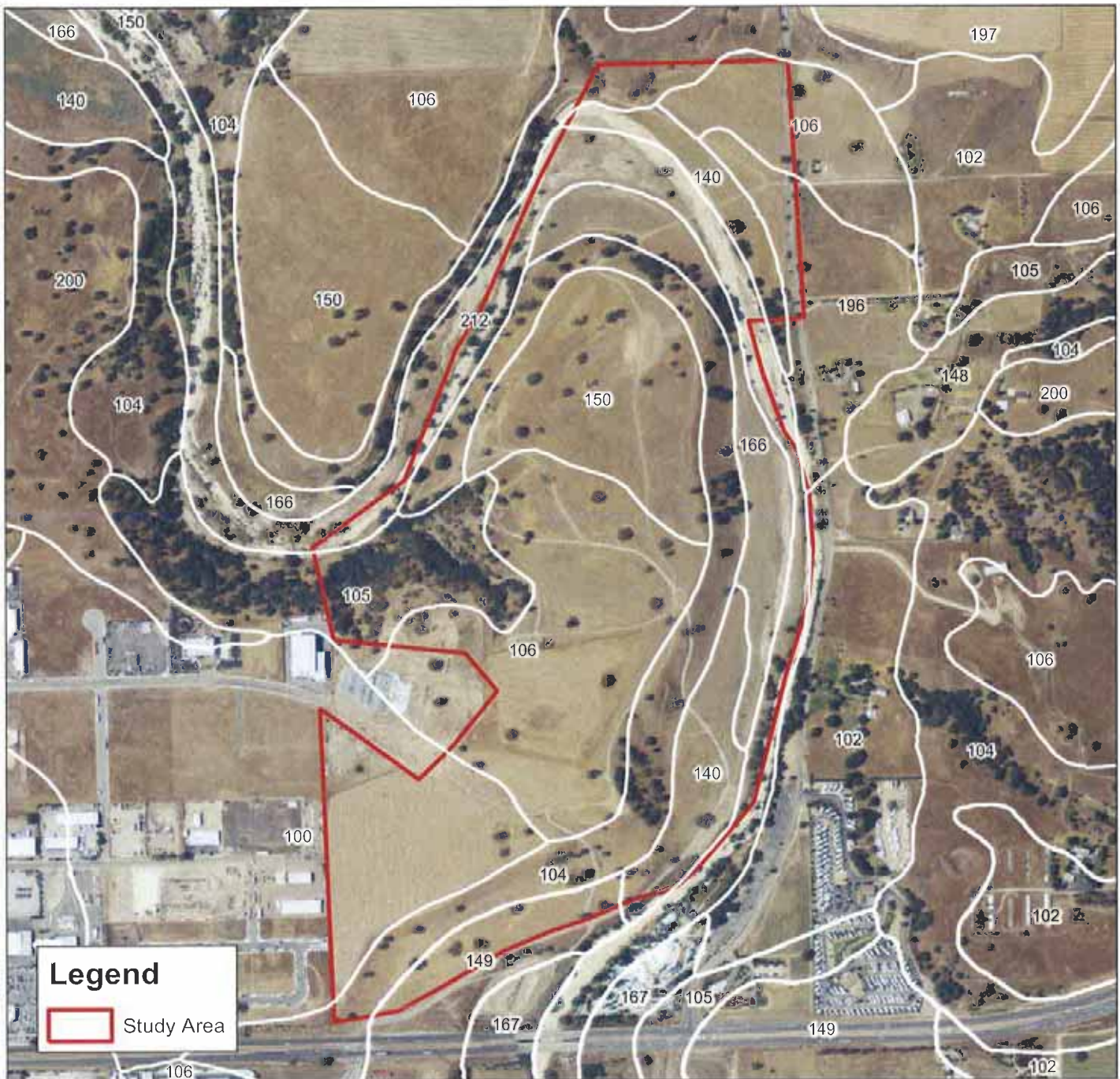
Legend

 Study Area

0 500 1,000 2,000
Feet



Figure 3. USDA Soils Map



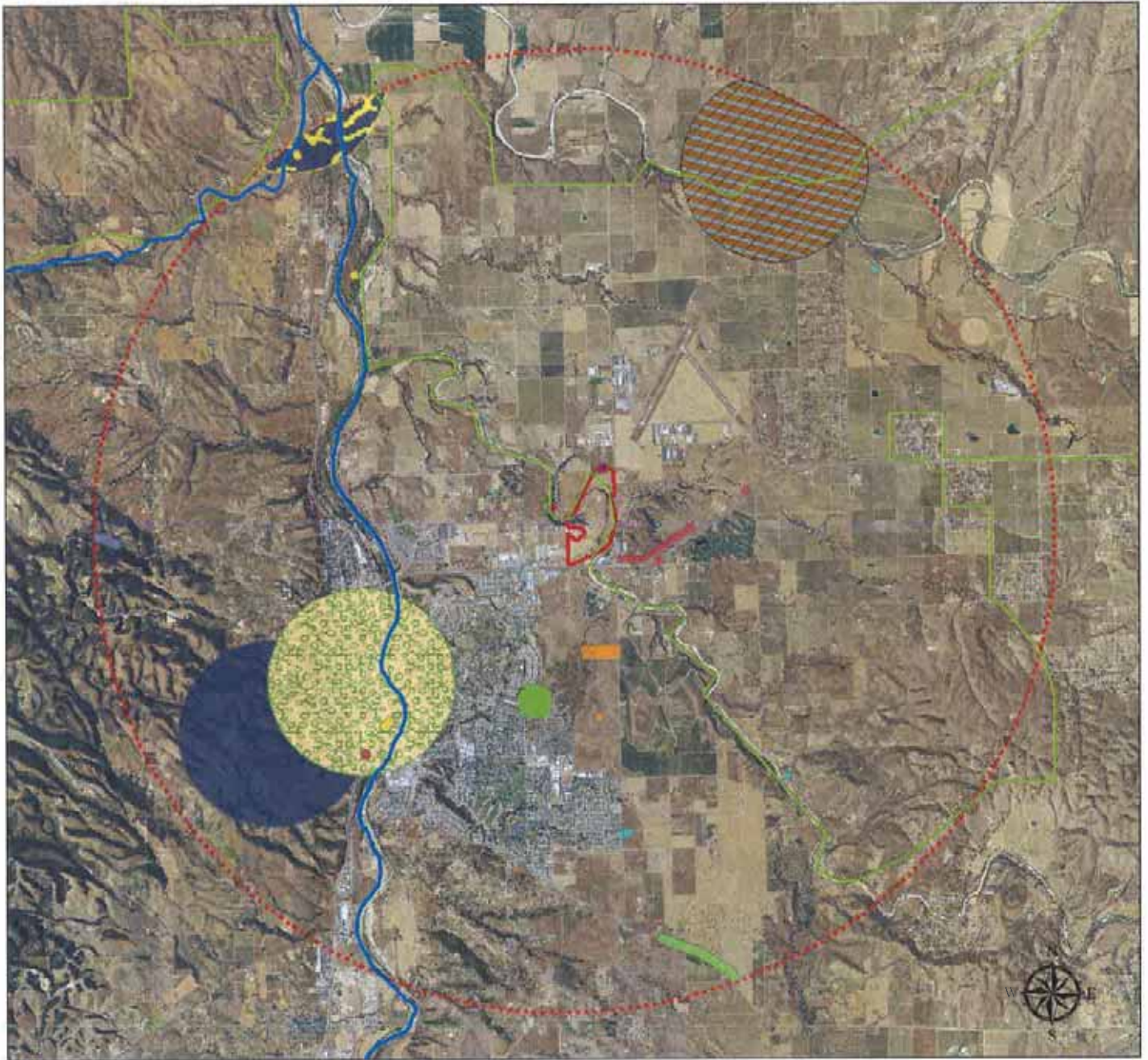
- 100: Arbuckle fine sandy loam, 0 to 2 percent slopes
- 102: Arbuckle-Positas complex, 9 to 15 percent slopes
- 104: Arbuckle-Positas complex, 30 to 50 percent slopes
- 105: Arbuckle-Positas complex, 50 to 75 percent slopes
- 106: Arbuckle-San Ysidro complex, 2 to 9 percent slopes
- 140: Elder loam, 0 to 5 percent slopes, flooded

- 148: Hanford and Greenfield soils, 2 to 9 percent slopes
- 149: Hanford and Greenfield gravelly sandy loams, 0 to 2 percent slopes
- 150: Hanford and Greenfield gravelly sandy loams, 2 to 9 percent slopes
- 166: Metz loamy sand, 0 to 5 percent slopes
- 167: Metz-Tujunga complex, occasionally flooded, 0 to 5 percent slopes
- 196: San Ysidro sandy loam, 2 to 9 percent slopes
- 197: Sesame sandy loam, 9 to 30 percent slopes
- 2: San Ysidro loam, 0 to 2 percent slopes
- 212: Xerofluvents-Riverwash association

0 500 1,000 2,000 Feet



Figure 4. CNDDDB & FWS Critical Habitat Map



FWS Critical Habitat

- Steelhead critical habitat
- Vernal pool fairy shrimp critical habitat

CNDDDB

- Atascadero June beetle
- Jared's pepper-grass
- Lemmon's jewelflower

- Lompoc grasshopper
- San Joaquin kit fox
- San Joaquin pocket mouse
- San Luis Obispo owl's-clover
- Santa Lucia dwarf rush
- golden eagle
- least Bell's vireo

- oval-leaved snapdragon
- round-leaved filaree
- shining navarretia
- vernal pool fairy shrimp
- western pond turtle
- western spadefoot
- woodland woollythreads

- 5 Mile Radius
- Study Area



Figure 5. Habitat Map



14.0 Exhibit A

San Joaquin Kit Fox Habitat Evaluation Form

Kit Fox Habitat Evaluation Form

Cover Sheet

Project Name Vesting Tentative Tract 3069

Project Location*

Wisteria Lane
Paso Robles

*Include project vicinity map and project boundary on copy of U.S.G.S. 7.5. minute map (size may be reduced)

U.S.G.S. Quad Map Name Paso Robles

Lat/Long or UTM coordinates (if available) N 35.6513 °

W 120.6443 °

Project Description:

General Plan Amendment / 13 Lot Subdivision to Facilitate Future Commercial / Industrial Development

Project Size: **55.84 acres** Amount of Kit Fox Habitat Affected: **55.84 acres**

Quantity of WHR Habitat Types Impacted (i.e. – 2 acres annual grassland, 3 acres blue oak woodland)

WHR type **Fallow ag or grain or grain/alfalfa crops** **55.84 acres**

Comments: Dry farmed grain operations onsite since 2008.

The attached Kit Fox Mitigation Area Map and Project Summary table show the project areas of impact that require mitigation for kit fox.

A general site map showing roads and lots is also included.

Form Completed by:

Daniel E. Meade

Revised 03102

*Vesting Tentative Tract 3069
Kit Fox Habitat Evaluation
October 19, 2015
Acreage revised April 14, 2016*

San Joaquin Kit Fox Habitat Evaluation Form

Is the project within 10 miles from a recorded San Joaquin kit fox observation or within contiguous suitable habitat as defined in Question 2(A-E)?

YES - Continue with evaluation form

NO - Evaluation form/surveys are not necessary

1. Importance of the project area relative to Recovery Plan for Upland Species of the San Joaquin Valley, California (Williams et al, 1998).
 - A. **Project would block or degrade an existing corridor linking core populations or isolate a subpopulation (20).**
 - B. Project is within a core population (15)
 - C. Project area is identified within satellite population (12)
 - D. Project area is within a corridor linking satellite populations (10)
 - E. Project area is not within any of the previously described areas but is within known kit fox range (5)

2. Habitat characteristics of the project area.
 - A. Annual grassland or saltbush scrub present >50% of site (15)
 - B. Grassland or saltbush scrub present but comprises <50% of project area (10)
 - C. Oak savannah present on >50% of site (8)
 - D. **Fallow ag fields or grain/alfalfa crops (7)**
 - E. Orchards/vineyards (5)
 - F. Intensively maintained row crops or suitable vegetation absent (0)

3. Isolation of project area
 - A. Project area surrounded by contiguous kit fox habitat as described in Question 2a-e (15)
 - B. **Project area adjacent to at least 40 acres of contiguous habitat or part of an existing corridor (10)**
 - C. Project area adjacent to <40 acres of habitat but linked by existing corridor (i.e.-river, canal, aqueduct) (7)
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 - E. Project area completely isolated by row crops or development and is greater than 200 yards from potential habitat (0)

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 - A. Increase in mortality likely (10)
 - B. **Unknown mortality effects (5)**
 - C. No long term effect on mortality (0)

5. Amount of potential kit fox habitat affected
 - A. > 320 acres (10)
 - B. 160-319 acres (7)
 - C. 80-159 acres (5)
 - D. **40-79 acres (3)**
 - E. <40 acres (1)

*Vesting Tentative Traci 3069
Kit Fox Habitat Eval/11alion
October 19, 2015
Acreage revised April 14, 2016*

- 6. Results of project implementation
 - A. **Project site will be permanently converted and will no longer support foxes (10)**
 - B. Project area will be temporarily impacted but will require periodic disturbance for ongoing maintenance (7)
 - C. Project area will be temporarily impacted and no maintenance necessary (5)
 - D. Project will result in changes to agricultural crops (2)
 - E. No habitat impacts (0)

- 7. Project shape
 - A. **Large block (10)**
 - B. Linear with >40 foot right-of way (5)
 - C. Linear with <40 foot right-of-way (3)

- 8. Have San Joaquin kit foxes been observed within 3 miles of the project area within the last 10 years?
 - A. Yes (10)
 - 8. No (0)**

Scoring

| | |
|---------------------------------|-----------|
| 1. Recovery importance | 20 |
| 2. Habitat condition | 7 |
| 3. Isolation | 10 |
| 4. Mortality | 5 |
| 5. Quantity of habitat impacted | 3 |
| 6. Project results | 10 |
| 7. Project shape | 10 |
| 8. Recent observations | _0 |
| Total | 65 |

Revised 03102-lpd

*Vesting Tentative Tract 3069
Kit Fox Habit at Evaluation
October 19, 2015
Acreage revised April 14, 2016*

Kit Fox Habitat Evaluation Form

Cover Sheet

Project Name Vesting Tentative Tract 3069

Project Location*

Wisteria Lane
Paso Robles

*Include project vicinity map and project boundary on copy of U.S.G.S. 7.5. minute map (size may be reduced)

U.S.G.S. Quad Map Name Paso Robles

Lat/Long or UTM coordinates (if available) N 35.6513 °
W 120.6443 °

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General Plan Amendment / 13 Lot Subdivision to Facilitate Future Commercial / Industrial Development

Project Size: **55.84 acres** Amount of Kit Fox Habitat Affected: **55.84 acres**

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Comments: Dry farmed grain operations onsite since 2008.

The attached Kit Fox Mitigation Area Map and Project Summary table show the project areas of impact that require mitigation for kit fox.

A general site map showing roads and lots is also included.

Form Completed by:



Revised 03/02

San Joaquin Kit Fox Habitat Evaluation Form

Is the project within 10 miles from a recorded San Joaquin kit fox observation or within contiguous suitable habitat as defined in Question 2(A-E)?

YES – Continue with evaluation form

NO – Evaluation form/surveys are not necessary

1. Importance of the project area relative to Recovery Plan for Upland Species of the San Joaquin Valley, California (Williams et al, 1998).
 - A. Project would block or degrade an existing corridor linking core populations or isolate a subpopulation (20).**
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4. Potential for increased mortality as a result of the project implementation. Mortality may come from direct (e.g. – construction related) or indirect (e.g. –vehicle strikes due to increases in post development traffic) sources.
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 - C. Linear with <40 foot right-of-way (3)

- 8. Have San Joaquin kit foxes been observed within 3 miles of the project area within the last 10 years?
 - A. Yes (10)
 - B. No (0)**

Scoring

| | |
|---------------------------------|-----------|
| 1. Recovery importance | 20 |
| 2. Habitat condition | 7 |
| 3. Isolation | 10 |
| 4. Mortality | 5 |
| 5. Quantity of habitat impacted | 3 |
| 6. Project results | 10 |
| 7. Project shape | 10 |
| 8. Recent observations | <u>0</u> |
| Total | 65 |

A & T ARBORISTS

P.O. BOX 1311 TEMPLETON, CA 93465 (805) 434-0131



Tree Protection Plan For Tract 2778

Prepared by A & T Arborists
and Vegetation Management

Chip Tamagni
Certified Arborist #WE 6436-A

Steven Alvarez
Certified Arborist #WE 511-A

Tract # _____

PD # _____

Building Permit # _____

RECEIVED

MAY 23 2014

City of Paso Robles
Community Development Dept.

As consulting arborists, we have been hired to inform and educate how to protect trees both during the design phase and construction. Different oak species can adapt to more impacts than others just as young trees can sustain more root disturbance than older trees. All individuals and firms involved in the planning stages should be made completely aware of the limitations regarding setbacks from critical roots zones that are recommended to protect the trees. When we are given a plan, it should show **all** possible disturbances within the drip line areas. This includes all cuts, fills, over-excavation limits, building clearances, planned vegetation, and all utilities. We will suggest changes if we feel the impacts are too great and it is up to the owner to follow our recommendations. If the plan we receive is not complete with potential impacts, we will fairly assume any additions will fall completely out of the critical root zone areas. It is the burden of the property owner to inform us of any changes, omissions, or deletions that may impact the critical root zone area of the trees in any way. This report is a preliminary investigation of the potential removals and tree impacts due to the project. In the near future we will be assessing every single tree that is potentially impacted or will need to be removed due to this project.

Project Description: This project involves the extension of Wisteria Street past Justin Winery into the current cattle land on the east side of Paso Robles. The plans are to build a roadway that will allow access to various parcels that make up Tract 2778.

The property consists of rolling grassland adjacent to Huer Huero Creek. The historical use has been for grazing as there are very few trees less than 40 years old. The oak trees on the property consist of blue oaks (*Quercus douglasii*) and valley oaks (*Quercus lobata*). Many of these trees are over-mature and have extensive cavities and hollow trunks rendering them potentially hazardous for any development within about 50 feet from the trunk on the larger trees.

There are two options for the path of the road at the north side of the property. We feel the western most option is preferred considering the location of the nearby trees.

Specific Mitigations Pertaining to the Project: These specific mitigations are intended to supplement the standard mitigations listed below. All work that is done within the critical root zone of a native oak is subject to monitoring by a certified arborist.

For both safety and tree health, all development within the individual parcels shall avoid the critical root zones unless specifically approved by a certified arborist at a later date. We noted that several trees have died from the time the aerial photograph was taken for this project. Due to the structural deficiencies in many of the trees (see spreadsheet comments), more will fail. There has been some lower canopy trimming which may help in prolonging the life of the trees but we feel a proper weight reduction and thinning program should be undertaken to preserve the few trees that exist on a given parcel. In addition, mistletoe should be removed from the trees along with a systemic insecticide application to reduce the scale populations that are infesting many of the trees.

There are three trees that may need to be removed for the roadway. Trees #21-23 are right on the edge of the road, however, their trunks were not plotted on the plans we received. A proper trunk location survey will be needed to determine if one or all three of these trees will need to be removed or possibly shift the road east. The impacts to

trees 30-32 can effectively be minimized by utilizing the west road option as described earlier.

All vegetation planted within the critical root zones shall be drought tolerant and native, thereby requiring minimal drip line irrigation. Absolutely no sprinklers shall be allowed to spray onto the trunk of an oak tree under any circumstance. This factor is one of the main reasons for blue oak mortality in the Paso Robles area.

Critical Root Zone Defined: The term “critical root zone” or CRZ is an imaginary circle around each tree. The radius of this circle (in feet) is equal to the diameter (in inches) of the tree. For example, a 10 inch diameter tree has a critical root zone with a ten foot radius from the tree. Working within the CRZ usually requires mitigations and/or monitoring by a certified arborist.

Most all trees potentially impacted by this project are numbered and identified on the grading plan and the spreadsheets. Potentially removed trees were highlighted on the preliminary grading plans. Some of these trees may be able to be saved with the design alterations suggested previously.

If pruning is necessary for building, road or driveway clearance, removal of limbs larger than 6 inches in diameter will require a city approved permit along with a deposit paid in advance (to the City of Paso Robles). The city will send out a representative to approve or deny the permit. Only 25% of the live crown may be removed during a given season. Only a crew supervised by a certified arborist may complete this work.

The following mitigation measures/methods must be fully understood and followed by anyone working within the critical root zone of any native tree. Any necessary clarification will be provided by us (the arborists) upon request.

It is the responsibility of the **owner or project manager** to provide a copy of the final tree protection plan to any and all contractors and subcontractors that work within the critical root zone of any native tree and confirm they are trained in maintaining fencing, protecting root zones and conforming to all tree protection goals. It is highly recommended that each contractor sign and acknowledge this tree protection plan.

Any future changes (within the critical root zone) in the project will need Project Arborist review and implementation of potential mitigation measures before any said changes can proceed.

Fencing: The proposed fencing shall be shown in orange ink on the grading plan. It must be a minimum of 4' high chain link, snow or safety fence staked (with t posts 8 feet on center) at the edge of the critical root zone or line of encroachment for each tree or group of trees. The fence shall be up before any construction or earth moving begins. The owner shall be responsible for maintaining an erect fence throughout the construction period. The arborist(s), upon notification, will inspect the fence placement once it is erected. After this time, fencing shall not be moved without arborist inspection/approval. If the orange plastic fencing is used, a minimum of four zip ties shall be used on each stake to secure the fence. All efforts shall be made to maximize

the distance from each saved tree. Weather proof signs shall be permanently posted on the fences every 50 feet, with the following information:

| |
|---|
| <p>Tree Protection Zone No personnel, equipment, materials, and vehicles are allowed Do not remove or re-position this fence without calling: A & T Arborists 434-0131</p> |
|---|

Soil Aeration Methods: Soils within the critical root zone that have been compacted by heavy equipment and/or construction activities must be returned to their original state before all work is completed. Methods include water jetting, adding organic matter, and boring small holes with an auger (18" deep, 2-3' apart with a 2-4" auger) and the application of moderate amounts of nitrogen fertilizer. The arborist(s) shall advise.

Chip Mulch: All areas within the critical root zone of the trees that can be fenced shall receive a 4-6" layer of chip mulch to retain moisture, soil structure and reduce the effects of soil compaction.

Trenching Within Critical Root Zone: All trenching within the critical root zone of native trees shall be **hand dug**. All major roots shall be avoided whenever possible. All exposed roots larger than 1" in diameter shall be clean cut with sharp pruning tools and not left ragged. 2" and larger roots shall be saved. A **Mandatory** meeting between the arborists and trenching contractor(s) must take place prior to work start.

Grading Within The Critical Root Zone: Grading should not encroach within the critical root zone unless authorized. Grading should not disrupt the normal drainage pattern around the trees. Fills should not create a ponding condition and excavations should not leave the tree on a rapidly draining mound.

Exposed Roots: Any exposed roots shall be re-covered the same day they were exposed. If they cannot, they must be covered with burlap or another suitable material and wetted down 2x per day until re-buried.

Equipment Operation: Vehicles and all heavy equipment shall not be driven under the trees, as this will contribute to soil compaction. Also there is to be no parking of equipment or personal vehicles in these areas. All areas behind fencing are off limits unless pre-approved by the arborist.

Existing Surfaces: The existing ground surface within the critical root zone of all oak trees shall not be cut, filled, compacted or pared, unless shown on the grading plans **and** approved by the arborist.

Construction Materials And Waste: No liquid or solid construction waste shall be dumped on the ground within the critical root zone of any native tree. The

critical root zone areas are not for storage of materials either. All portable toilets shall be located no closer than 50 feet from the edge of any critical root zone.

Arborist Monitoring: An arborist shall be present for selected activities (trees identified on spreadsheet and items bulleted below). The monitoring does not necessarily have to be continuous but observational at all times during these activities within the CRZ. It is the responsibility of the **project manager or their designee** to inform us prior to these events so we can make arrangements to be present. All monitoring will be documented on the field report form which will be forwarded to the project manager and the City of Paso Robles Planning Department. All blatant violations shall be immediately reported to the project manager. Monitoring will include:

- pre-construction fence placement inspection
- any critical root zone disturbance
- all grading and trenching identified on the spreadsheet
- any other encroachment the arborist feels necessary

Pre-Construction Meeting: An on-site pre-construction meeting with the Arborist(s), Owner(s), Planning Staff, and the grading contractor shall be required for this project. Prior to final occupancy, a letter from the arborist(s) shall be required verifying the health/condition of all impacted trees and providing any recommendations for any additional mitigation. The letter shall verify that the arborist(s) were on site for all grading and/or trenching activity that encroached into the critical root zone of the selected native trees, and that all work done in these areas was completed to the standards set forth above.

Pruning Class 4 pruning includes-Crown reduction pruning shall consist of reduction of tops, sides or individual limbs. A trained arborist shall perform all pruning. No pruning shall take more than 25% of the live crown of any native tree. Any trees that may need pruning for road/home clearance shall be pruned **prior** to any grading activities to avoid any branch tearing.

Landscape: All irrigation trenching shall be routed around critical root zones, otherwise above ground drip-irrigation shall be used. Only drought tolerant native species shall be planted within the critical root zones.

Utility Placement: All utilities, sewer and storm drains shall be placed down the roads and pathways and when possible outside of the critical root zones. The arborist shall supervise trenching within the critical root zone. **All trenches in these areas shall be exposed by air spade or hand dug with utilities routed under/over** roots larger than 3 inches in diameter. Boring is another acceptable method.

Fertilization and Cultural Practices: As the project moves toward completion, the arborist(s) may suggest insecticide, fungicide, fertilization and/or mycorrhiza applications that will benefit tree health. Mycorrhiza offers several benefits to the host plant, including faster growth, improved nutrition, greater drought resistance,

and protection from pathogens. We will make the determinations during our monitoring visits on a tree by tree basis.

Further data to be collected will include: trees listed by number, species and multiple stems if applicable, scientific name, diameter and breast height (4.5'), condition (scale from poor to excellent), status (avoided, impacted, removed, exempt), percent of critical root zone impacted, mitigation required (fencing, root pruning, monitoring), construction impact (trenching, grading), recommended pruning, aesthetic value and individual tree notes along with canopy spread.

If all the above mitigation measures are followed, we feel there will minimal long-term significant impacts to the native trees.

Please let us know if we can be of any future assistance to you for this project.

Steven G. Alvarez
Certified Arborist #WC 0511

Chip Tamagni
Certified Arborist #WE 6436-A

TREE PROTECTION SPREAD SHEET FOR
Tract 2778

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|--------|--------------|-----------------|-----------|----------------|--------------|--------------|--------------|---------------------|---------------|---------------|--------------|-------------------|-------|--------------|
| TREE # | TREE SPECIES | SCIENTIFIC NAME | TRUNK DBH | TREE CONDITION | CONST STATUS | CRZ % IMPACT | CONST IMPACT | MITIGATION PROPOSAL | MONT REQUIRED | PRUNING CLASS | AESTH. VALUE | FIELD NOTES | NS EW | LTSI H-M-L-N |
| 1 | BO | Q. doug. | 24 | 5 | A | 0% | NONE | F | NO | II | excel. | | 40/40 | none |
| 2 | BO | Q. doug. | 40 | 4 | A | 0% | NONE | F | NO | II | excel. | | 50/50 | none |
| 3 | BO | Q. doug. | 34 | 3 | A | 0% | NONE | F | NO | II | good | past failures | 50/50 | none |
| 4 | BO | Q. doug. | 25 | 1 | A | 0% | NONE | F | NO | II | fair | major failure | 30/30 | none |
| 5 | BO | Q. doug. | 22 | 4 | A | 0% | NONE | F | NO | II | excel. | mistletoe | 30/35 | none |
| 6 | BO | Q. doug. | 30 | 4 | A | 0% | NONE | F | NO | II | excel. | | 50/50 | none |
| 7 | BO | Q. doug. | 34 | 3 | A | 0% | NONE | F | NO | II | good | cavity | 55/55 | none |
| 8 | BO | Q. doug. | 10 | 5 | A | 0% | NONE | F | NO | II | good | | 20/20 | none |
| 9 | BO | Q. doug. | 30 | 5 | A | 0% | NONE | F | NO | II | excel. | | 50/50 | none |
| 10 | VO | Q. lobata | 44 | 2 | A | 0% | NONE | F | NO | II | good | major cavities | 55/55 | none |
| 11 | VO | Q. lobata | 42 | 2 | A | 0% | NONE | F | NO | II | good | major cavities | 50/50 | none |
| 12 | BO | Q. doug. | 34 | 4 | A | 0% | NONE | F | NO | II | good | | 50/50 | none |
| 13 | VO | Q. lobata | 36 | 2 | A | 0% | NONE | F | NO | II | good | decay at base | 50/30 | none |
| 14 | VO | Q. lobata | 50 | 3 | A | 0% | NONE | F | NO | II | excel. | cavity at base | 55/55 | none |
| 15 | VO | Q. lobata | 20 | 3 | A | 0% | NONE | F | NO | II | good | | 35/35 | none |
| 16 | VO | Q. lobata | 40 | 2 | A | 0% | NONE | F | NO | II | fair | scale infestation | 55/55 | none |
| 17 | BO | Q. doug. | 25 | 4 | A | 0% | NONE | F | NO | II | excel. | | 45/45 | none |
| 18 | BO | Q. doug. | 24 | 4 | A | 0% | NONE | F | NO | II | excel. | | 40/40 | none |
| 19 | VO | Q. lobata | 48 | 2 | A | 0% | NONE | F | NO | II | good | massive failure | 65/65 | none |
| 20 | VO | Q. lobata | 27 | 4 | R | 100% | GR | | NO | | good | | 40/40 | |

1 = TREE #, MOSTLY CLOCKWISE FROM DUE NORTH
 2 = TREE TYPE: COMMON NAME IE W.O = WHITE OAK
 3 = SCIENTIFIC NAME
 4 = TRUNK DIAMETER @ 4"

5 = TREE CONDITION: 1 = POOR, 10 = EXCELLENT
 6 = CONSTRUCTION STATUS: AVOIDED, IMPACTED, REMOVAL
 7 = CRZ: PERCENT OF IMPACTED CRITICAL ROOT ZONE

8 = CONSTRUCTION IMPACT TYPE: GRADING, COMPACTION, TRENCHING
 9 = MITIGATION REQUIREMENTS: FENCING, MONITORING, ROOTPRUNING,
 10 = ARBORIST MONITORING REQUIRED: YES/NO
 11 = PERSCRIBED PRUNING: CLASS 1-4
 12 = AESTHETIC VALUE
 13 = FIELD NOTES
 14 = NORTH, SOUTH, EAST, WEST
 15 = LONG TERM SIGNIFIANT IMPACT

Remove

TREE PROTECTION SPREAD SHEET FOR
Tract 2778

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|--------|--------------|-----------------|-----------|----------------|--------------|--------------|--------------|---------------------|---------------|---------------|--------------|-----------------------|-------|--------------|
| TREE # | TREE SPECIES | SCIENTIFIC NAME | TRUNK DBH | TREE CONDITION | CONST STATUS | CRZ % IMPACT | CONST IMPACT | MITIGATION PROPOSAL | MONT REQUIRED | PRUNING CLASS | AESTH. VALUE | FIELD NOTES | NS EW | LTSI H-M-L-N |
| 21 | VO | Q. lobata | 25 | 4 | R | 100% | GR | | NO | | good | | 35/35 | |
| 22 | VO | Q. lobata | 18 | 4 | R | 100% | GR | | NO | | good | | 25/25 | |
| 23 | BO | Q. doug. | 17 | 4 | A | 0% | NONE | F | NO | II | good | | 25/25 | none |
| 24 | BO | Q. doug. | 22 | 2 | A | 0% | NONE | F | NO | II | good | hollow tree | 33/33 | none |
| 25 | BO | Q. doug. | 20 | 4 | A | 0% | NONE | F | NO | II | good | | 35/35 | none |
| 26 | BO | Q. doug. | 39 | 1 | A | 0% | NONE | F | NO | II | fair | mistletoe, in decline | 30/30 | none |
| 27 | BO | Q. doug. | 18 | 2 | A | 0% | NONE | F | NO | II | fair | mistletoe, in decline | 30/30 | none |
| 28 | BO | Q. doug. | 18 | 3 | A | 0% | NONE | F | NO | II | good | | 35/35 | none |
| 29 | BO | Q. doug. | 40 | 1 | A | 0% | NONE | F | NO | II | fair | in decline | 30/30 | none |
| 30 | VO | Q. lobata | 28 | 3 | I | 5% | GR | F,M | YES | II | good | | 50/50 | low |
| 31 | VO | Q. lobata | 50 | 4 | I | 10% | GR | F,M | YES | II | good | | 60/60 | low |
| 32 | VO | Q. lobata | 55 | 2 | I | 15% | GR | F,M | YES | II | good | hollow tree | 60/60 | low |
| 33 | BO | Q. doug. | 31 | 4 | I | 5% | GR | F,M | YES | II | good | | 40/40 | low |
| 34 | VO | Q. lobata | 28 | 3 | A | 0% | NONE | F | NO | II | good | | 50/50 | none |
| 35 | VO | Q. lobata | 34 | 2 | A | 0% | NONE | F | NO | II | fair | scale infestation | 50/50 | none |
| 36 | VO | Q. lobata | 30 | 3 | A | 0% | NONE | F | NO | II | fair | scale infestation | 45/45 | none |

1 = TREE #: MOSTLY CLOCKWISE FROM DUE NORTH
 2 = TREE TYPE: COMMON NAME IE.W.O = WHITE OAK
 3 = SCIENTIFIC NAME
 4 = TRUNK DIAMETER @ 46"
 5 = TREE CONDITION: 1 = POOR, 10 = EXCELLENT
 6 = CONSTRUCTION STATUS: AVOIDED, IMPACTED, REMOVAL
 7 = CRZ: PERCENT OF IMPACTED CRITICAL ROOT ZONE
 8 = CONSTRUCTION IMPACT TYPE: GRADING, COMPACTION, TRENCHING
 9 = MITIGATION REQUIREMENTS: FENCING, MONITORING, ROOTPRUNING,
 10 = ARBORIST MONITORING REQUIRED: YES/NO
 11 = PRESCRIBED PRUNING: CLASS 1-4
 12 = AESTHETIC VALUE
 13 = FIELD NOTES
 14 = NORTH, SOUTH, EAST, WEST
 15 = LONG TERM SIGNIFIANT IMPACT

CONCEPTUAL PLAN
ROAD ALIGNMENT & PARCELS
TRACT 2778



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08-04-2013



**JUSTIN VINEYARDS AND WINERY, LLC
GENERAL PLAN AMENDMENT AND VESTING TENTATIVE TRACT MAP
WISTERIA LANE, PASO ROBLES, CA 93446**

GENERAL DESCRIPTION

The following application includes a General Plan Amendment and Vesting Tentative Tract Map. The proposal is to subdivide 3 existing parcels, APNs 025-435-029, 030, 031, into 17 lots that are more suitable to the viability of the land. The application is also for a General Plan Amendment, to rezone the parcels in the proposed subdivision and also for 3 lots located in Tract 2778. No specific plans for use of the building site have been proposed at this time.

The site is located at the eastern end of Wisteria Lane in the City of Paso Robles, CA. It is currently accessed from Hwy 46 East, to Golden Hill Road (northern section) and onto Wisteria Lane. This is currently the only access. The City has slated future access to this site in the City's General Plan, Circulation Element. The Golden Hill Business Park and Lowe's shopping center is located to the west, the Ravine Water Park to the southeast, and agriculture land and single family residences to the east and north. The site has multiple land use designations (Planned Industrial, Residential Agriculture and Parks and Open Space) and is subject to the City of Paso Robles Airport Land Use Plan Safety Zone's 2-4.

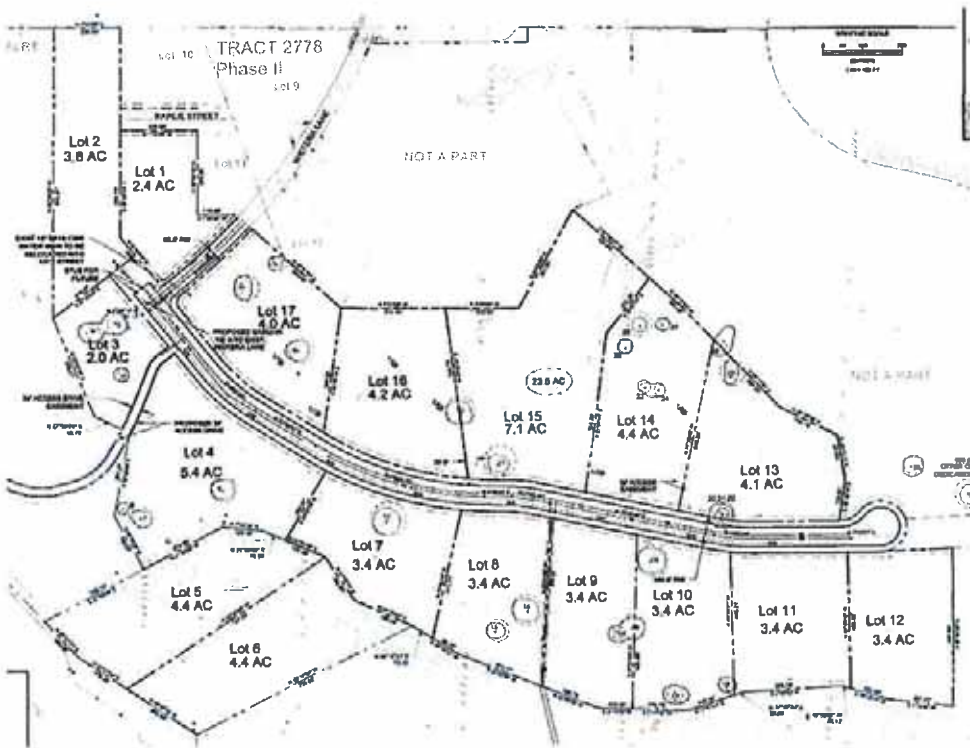
Vesting Tentative Tract Map

This application includes the subdividing of the 3 existing parcels on Wisteria Lane to create 17 proposed lots. Lot sizes range from 2-7 acres. The subdivision of the lots will better conform to the surrounding land uses such as the Golden Hill Business Park and other commercial lots that are being developed in the area. This subdivision will allow better use for the viability of the property.

EXISTING PARCEL MAP 025-435-029, 030, 031



TENTATIVE TRACT IMPROVEMENTS – PROPOSED LOTS 1-17



The map includes a 2-lane arterial access road access will be improved and end at a cul-de-sac. A future extension of this road, out to Dry Creek Rd, is offered as a dedication. The General Plan's Circulation Element suggests a future connection from HWY 46 East through the project site, with a connection to Dry Creek Road. This subdivision recognizes the City's future plans and has been designed to accommodate it.



General Plan Amendment

Part of this application requires the following amendments to the City of Paso Robles General Plan Land Use Designations for future uses: (existing to proposed):

- Lots 9-11 (Tract 2778): Business Park to Commercial
- Lots 1-3: Business Park to Commercial
- Lot 4: Agriculture/ Parks and Open Space to Commercial
- Lots 7-16: Parks and Open Space to Business Park
- Lot 17: Business Park/ Parks and Open Space (POS) to Business Park

**Lots 5&6 are not planned for rezone and will remain as Parks and Open Space (POS)/Agriculture*

Rezone Amendment

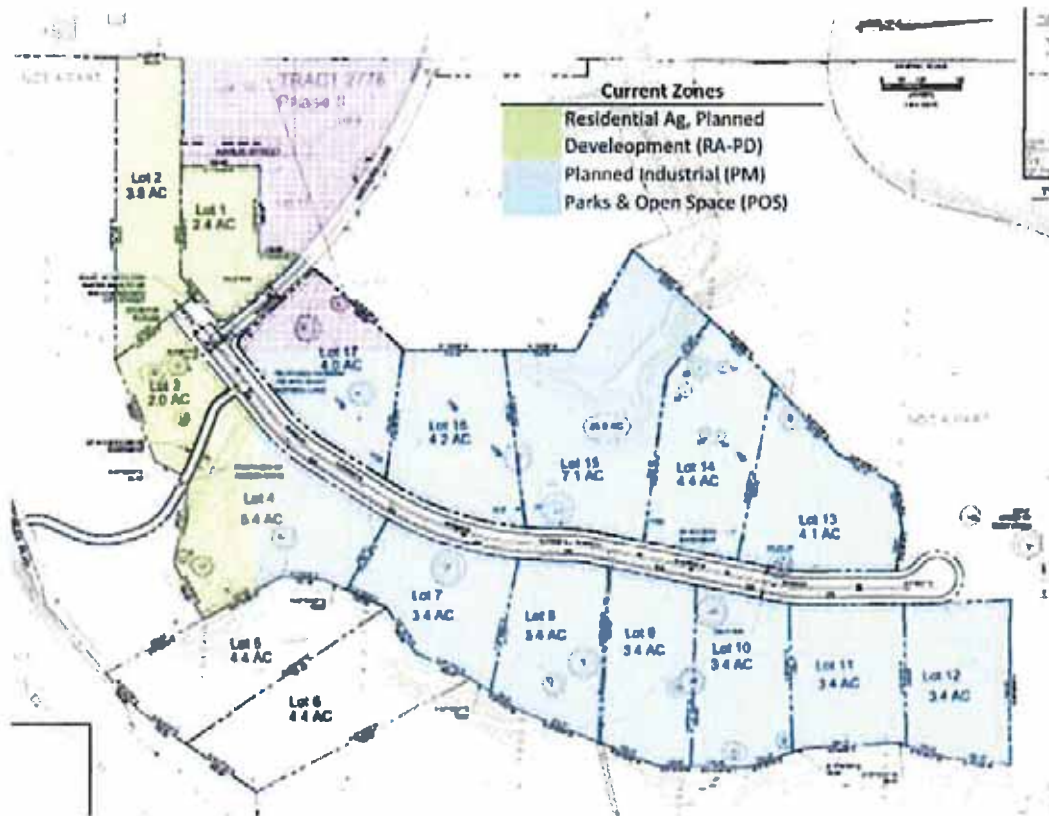
This portion of the application includes the rezoning of the following subdivided lots for future uses: (existing to proposed)

- Lots 9-11 (Tract 2778): Planned Industrial to Commercial Highway
- Lots 1-3: Residential Agriculture Planned Development to Commercial Highway
- Lot 4: Residential Agriculture Planned Development and Parks and Open Space to Commercial Highway
- Lots 7-16: Parks and Open Space to Planned Industrial
- Lots 17: Planned Industrial and Parks and Open Space to Planned Industrial

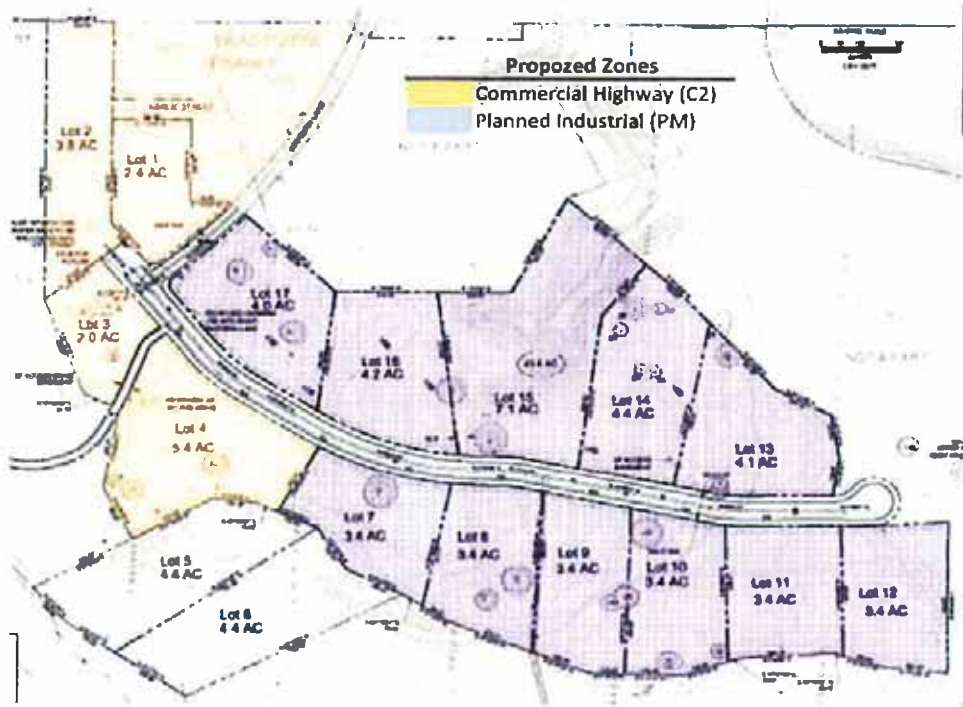
**Lots 5 & 6: Residential Agriculture Planned Development and Parks and Open Space not to be rezoned*

Amending of the General Plan in this area of Paso Robles to Commercial and Business Park designations will allow future land uses to coexist with surrounding development of other parcels in the area. The lots rezoned to Commercial Highway C-2 will provide more opportunities for development, as the Residential Agriculture zone is very limited. The lots rezoned to Planned Industrial will be better for the City as they provide the opportunity for increased growth. Please refer to the attached land use matrix to better understand how this amendment will provide for better opportunities for future growth and compatibility with surrounding uses.

EXISTING ZONES



PROPOSED ZONES



ENVIRONMENTAL IMPACTS

BIOLOGICAL

The project site is currently vacant. The site is currently undergoing a series of biological surveys and a complete biological assessment will be provided next month. The biological assessment will help identify any constraints for future development planning.

The subdivision of the parcels will not have any significant impacts to the land or its natural resources. A complete biological study will be conducted when specific future uses of the property are decided.

TREE MITIGATION

A&T Arborists have provided ways to protect trees onsite both during the design phase and construction of the project site. As the land has historically been used for grazing, there are very few trees less than 40 years old. The oak trees on the property have been rendered potentially hazardous for any development within about 50 feet from the trunk; therefore, all development will avoid the critical root zones (CRZ). The radius of this circle, in feet, is equal to the diameter, in inches, of the tree. Any changes or work done near or on the CRZ will receive project arborist's review and implementation for potential mitigation measures before any said changes or construction proceed. If the mitigation measures described by the arborists are followed, there will be minimal long-term significant impacts to the native trees.

The Tentative Tract Map of this project will eventually include the development of a new road way to provide easier access to the subdivided parcels. An inventory of the oak tree's on site revealed that trees #21-23 will need to be removed due to their location on the edge of the road. As specific future uses have not yet been designated for the project site, no other trees will be negatively impacted at this time. Please refer to the attached arborist report and map.

TRAFFIC

Wisteria Lane is an east-west, two-lane roadway in northern Paso Robles. It provides access in to the Golden Hill Business Park and also serves as a private road to a small number of residences. There is no signed speed limit, but based on observations, vehicular travel speeds are upward of 30 mph. There is no transit service provided in the vicinity of the project site; the nearest being at the corner of Dallons Drive and Buena Vista Drive. The roadway width of Wisteria Lane, 48 feet wide, provides sufficient room for vehicles and cyclists to travel in the same direction parallel to each other. Sidewalks are present along Wisteria Lane.

Specific uses of the property have not yet been designated, however a traffic study is being conducted to evaluate the potential impacts estimated from the change in proposed land uses. The Land Use Matrix table attached, shows allowable uses per each lot with current zoning and proposed zoning in relation to the City of Paso Robles Airport Land Use Plan. The traffic study will also take future plans for improved circulation as slated in the City's Circulation Element and project's proposed access and dedication for future access. The traffic study is forthcoming.

CULTURAL STUDY

The Central Coast Information Center search results did not identify any previously documented cultural resources with the project area within a 0.5 mile radius. The Native American Heritage Commission Program declared that the Sacred Land File did not indicate the presence of Native American cultural resources in the project area. Historic Debris were not considered on the site due to their lack of potential to qualify as historical or unique archaeological under CEQA. JW-3, a low density lithic debitage and tool scattering measure, was found in proposed lot 3 (now reconfigured as lot 4 on the proposed VTTM). Engineers are attempting to design the current project to avoid all potential impacts to JW-3. Should future development be proposed on Lot 4 the study has indicated that further investigation may be warranted. The results of the study indicate that cultural resources that may meet the CEQA definition of historical resources and/or unique archaeological resources are within the project area. Please refer to the copy of the Phase I Archeological Assessment provided with this application.

PHASE I ARCHAEOLOGICAL SURVEY

JUSTIN VINEYARDS-WISTERIA PROJECT

PASO ROBLES, SAN LUIS OBISPO COUNTY, CALIFORNIA

LSA

June 2014

PHASE I ARCHAEOLOGICAL SURVEY

JUSTIN VINEYARDS-WISTERIA PROJECT
PASO ROBLES, SAN LUIS OBISPO COUNTY, CALIFORNIA

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Project No. ROL1301

LSA

June 2014

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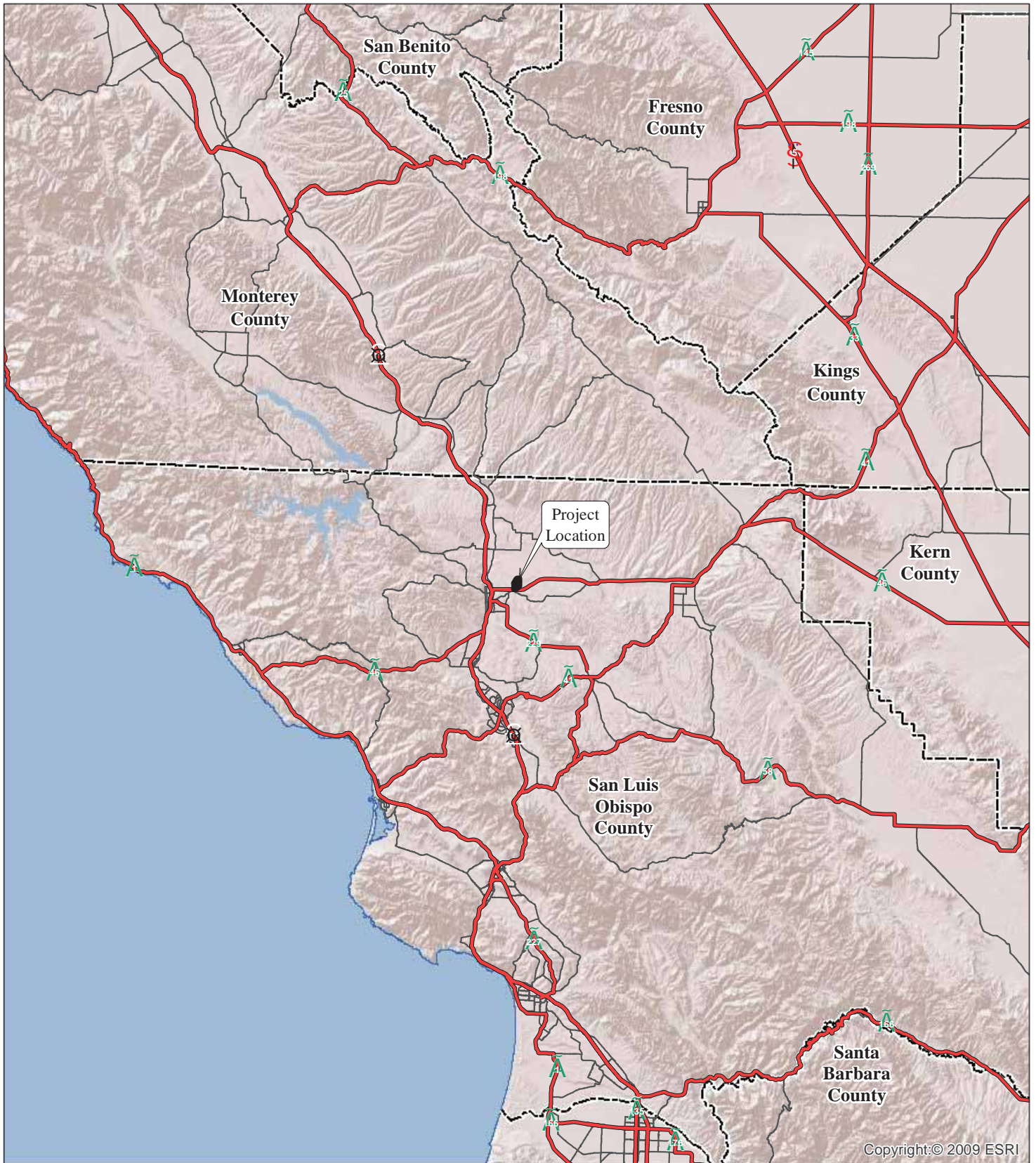
INTRODUCTION

This report documents the results of a Phase I Archaeological Survey (study) conducted by LSA Associates, Inc. (LSA), for the Justin Vineyards-Wisteria Project (project) in San Luis Obispo County. The project area comprises 210 acres in the eastern portion of the City of El Paso de Robles (Paso Robles), north of State Route 46 and east of Airport Road (Figures 1 and 2). The project involves an 8-lot Tentative Tract Map/Planned Development and General Plan Amendment to 11 lots located at the eastern end of Wisteria Lane in Paso Robles (Figure 3).

LSA conducted records searches, a literature and map review, Native American consultation, and a field survey to prepare this study. This report addresses the requirements of the California Environmental Quality Act (CEQA) and the San Luis Obispo County General Plan Conservation and Open Space Element. The purpose of this study is to (1) identify cultural resources that may meet the CEQA definition of a historical resource or unique archaeological resource and that may be impacted by project activities; and (2) recommend mitigation for avoiding or minimizing such impacts, should they occur.

The study identified three previously undocumented prehistoric archaeological sites (JVW-1, JVW-2, and JVW-3) and a single prehistoric isolate (JVW-ISO-1) in the 210-acre project area. The archaeological sites are low-density lithic debitage and tool scatters in the southeastern portion of the project area. The archaeological isolate, a leaf shaped projectile point fragment, is in the same vicinity of the prehistoric sites. This study documents the identified archaeological cultural resources; however, it was not within the scope of this investigation to evaluate the eligibility of the identified resources for their inclusion in the California Register of Historical Resources (CRHR). Further cultural resources study (i.e., Phase II evaluative test excavations) would be required to formally evaluate the resources for their eligibility for inclusion in the CRHR. As sensitive archaeological site information is not for public dissemination, site and isolate locations and site forms are provided in a confidential appendix (Appendix C).

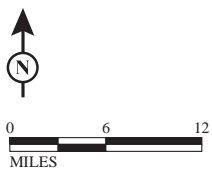
The results of the study indicate that archaeological cultural resources that may meet the CEQA definition of historical resources and/or unique archaeological resources are in the project area. LSA recommends that all potential impacts to the archaeological cultural resources from the current project be avoided through project design modification and the implementation of the mitigation measures provided in this study. Two of the archaeological sites (JVW-1 and JVW-2) and the isolated artifact (JVW-ISO-1) are outside of the proposed development areas (i.e., no grading and/or construction will occur within or adjacent to their locations). JVW-3, however, is within proposed "New Lot No. 3" (Figure 3). Although JVW-3 is within proposed New Lot No. 3, project engineers are attempting to design the current project to avoid all potential direct impacts to the site. In the event that potential impacts to the identified archaeological cultural resources cannot be avoided, this study provides additional recommendations to reduce potential impacts to a less than significant level.



Copyright: © 2009 ESRI

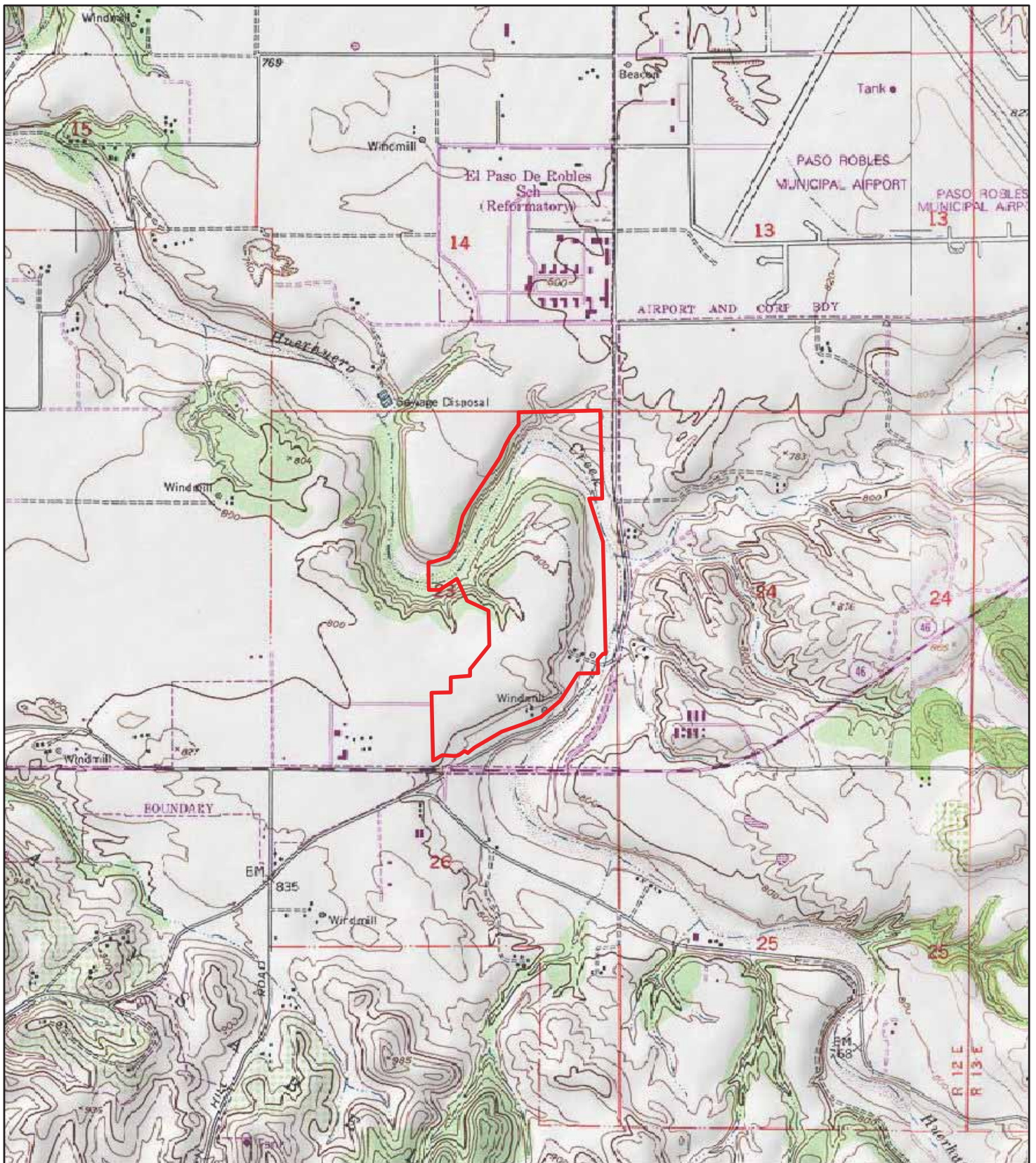
LSA

FIGURE 1



*Phase I Archaeological Survey
Justin Vineyards-Wisteria Project
Paso Robles, San Luis Obispo County, California
Project Vicinity Map*

SOURCE: Dan King Surveying (5/6/2013), ESRI (2012)
E:\ROL1301\GIS\ProjectVicinity.mxd (8/20/2013)

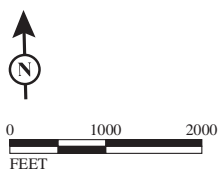


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LEGEND

Project Location

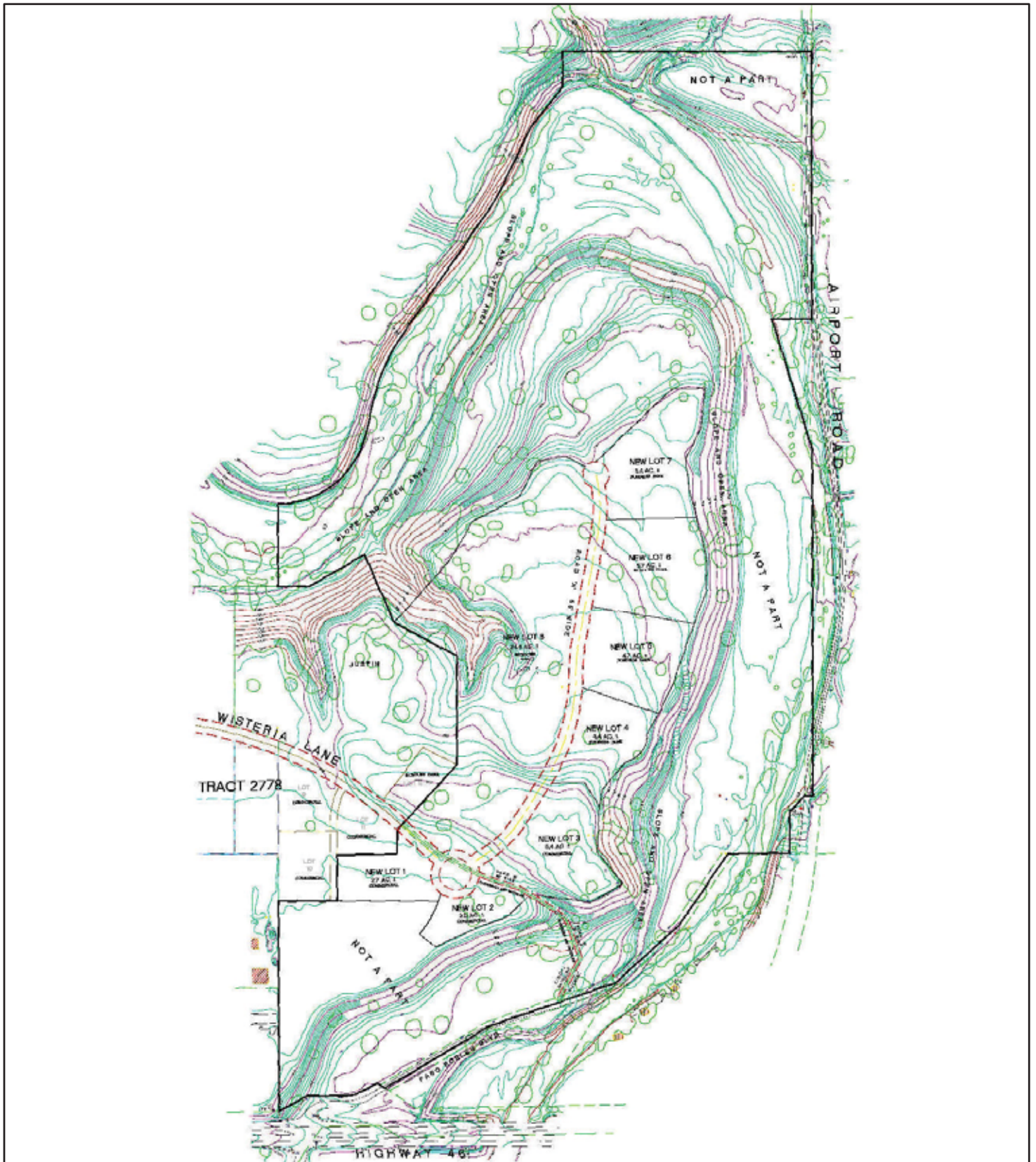
FIGURE 2



Phase I Archaeological Survey
Justin Vineyards-Wisteria Project
Paso Robles, San Luis Obispo County, California
Project Location Map

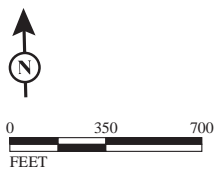
SOURCE: Dan King Surveying (5/6/2013), USGS 7.5' Quad - Paso Robles (1979), CA

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LSA

FIGURE 3



*Phase I Archaeological Survey
Justin Vineyards-Wisteria Project
Paso Robles, San Luis Obispo County, California
Proposed Development Map*

SOURCE: Dan King Surveying (5/6/2013)

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PROJECT SETTING

PROJECT LOCATION AND DESCRIPTION

The 210-acre project area envelope is located at the eastern terminus of Wisteria Lane, north of State Route 46 and west of Airport Road in eastern Paso Robles, in San Luis Obispo County, California (Figures 1 and 2). The project area is within Section 23, Township 26 South/Range 12 East Mount Diablo Base Line and Meridian, on the United States Geological Survey (USGS) *Paso Robles, California* 7.5-minute topographic map (Figure 2). The project area is within the southern Salinas River valley at an approximate elevation of 800 feet above sea level. Huer Huero Creek, characterized by its broad white sandy bottom, bisects the northern portion of the project area. The current land use is an active cattle ranch.

Vegetation in the project area and its vicinity consists of oak forest, annual grasses, and riparian corridors with willow trees in and around Huer Huero Creek and its tributaries. Much of the project area is currently plowed. Fauna that historically inhabited the project area included black-tailed deer (*Odocoileus hemionus columbianus*), bobcat (*Lynx rufus*), black-tailed jackrabbit (*Lepus californicus*), cottontail rabbit (*Sylvilagus* spp.), black bear (*Ursus americanus*), and grizzly bear (*Ursus horribilis*), as well as other small mammals, reptiles, amphibians, and birds.

The project involves an 8-lot Tentative Tract Map/Planned Development and General Plan Amendment to 11 lots located at the eastern end of Wisteria Lane in Paso Robles (Figure 3).

The proposed General Plan Amendment involves the following:

- **Lot Nos. 1–3:** From Residential Agriculture (RA PD) Planned Development to Commercial Highway (C-2)
- **Lot Nos. 4–8:** From Parks and Open Space (POS) to Planned Industrial Zoning (Business Park)
- **Lot Nos. 9–11:** From Planned Industrial to Commercial Highway (C-2)

Road Improvements and utilities will be provided to access the site from the northwest portion of Lot No. 2 up to the northwest corner of Lot No. 7, and road design and offer of dedication will be provided to the City (Paso Robles) for future extension out to Dry Creek Road (Figure 3).

CULTURAL SETTING

Ethnography

By historical accounts (Gibson 1983; Kroeber 1925), the project area was located in an area occupied by the Hokan-speaking Playanos Salinan. However, the precise location of the boundary between the Playanos Salinan and their southern neighbors, the Obispeño Chumash, is currently the subject of debate (Milliken and Johnson 2005). Jones and Waugh (1995:8) state that “those boundaries may well

have fluctuated through time in response to possible shifts in economic strategies and population movement.” A discussion of both groups is provided below.

Salinan. Salinan territory at the time of Euro-American contact is estimated to have included the Pacific Coast from Lucia south to near Morro Bay, from the coast inland about 50 miles, and the Salinas River watershed from its headwaters north to Soledad (Hester 1978:501). Linguistically, Salinan is included within the Hokan stock of Native American languages, possibly the most ancient language group in California. The Salinan spoke two dialects: Antoniaño and Miguelino, spoken in the vicinity of missions San Antonio and San Miguel, respectively.

Based on San Antonio and San Miguel mission records, the population of the Salinan at the time of European contact was estimated to be between 2,000 to 3,000 persons (Kroeber 1925:547). The population was likely organized into independent land-holding entities called tribelets. Tribelets typically consisted of a principal village that was occupied year-round and smaller satellite settlements occupied by certain families or during certain seasons. In general, Salinan inland sites were situated near freshwater sources, such as along creeks, riverbanks, and flood plains. The principal village of the Miguelino was at either present-day Cholame or, possibly, at the site of Mission San Miguel (Kroeber 1925:547).

Village structures included houses, semi-subterranean sweathouses, and dancehouses, the latter of which is not described in the literature (Brusa 1992; Hester 1978; Mason 1912). Houses were quadrangular and supported by a framework of poles. Thatched bundles of tule or rye were used for the roof, and the walls were made of tule. Semi-subterranean sweathouses were constructed by excavating a 4-foot-wide, 1-foot-deep hole, over which a hemispherical structure of brush, deer skins, and mud was erected.

Technology of the Salinan included basket weaving and a wide range of tools and implements fashioned from stone (Hester 1978:501). Stone mortars and pestles were used for processing acorns and other plant food. Locally available Monterey Chert was used to make arrow points, scraping tools, knives, and choppers. Bone and shell was used to make awls and personal adornments and fishhooks.

The Salinan have been described as “completely omnivorous” (Kroeber 1925:547). Acorns were a staple food, and various seeds, roots, berries, and greens were also collected. Salinan along the coast relied heavily on a wide variety of marine resources, while those in the interior likely fished for trout and suckers in streams and for salmon in the Salinas River (Brusa 1992:23). Small animals, including snakes, rabbits, birds, and yellow-jacket larvae were consumed. Large mammals like deer, bear, and antelope also constituted an important component of the Salinan diet.

The establishment of missions San Antonio de Padua in 1771 and San Miguel in 1797 disrupted the traditional lifeways of the Salinan and resulted in a precipitous population decline. Once the Salinan entered the missions, they were prohibited from pursuing their traditional lifeways. Instead, they were taught agriculture and stock-raising, and were employed at weaving (Hester 1978:503). Estimated to be between 2,000 to 3,000 individuals at the time the missions were established, the Salinan population declined to fewer than 700 by 1831 (Hester 1978:503).

Chumash. At the time of European contact, the project area was within the territory of the Hokan-speaking Playanos Salinan, who occupied the area between the coastline and the Santa Lucia and San Raphael ranges from Point Conception to Point Estero (Greenwood 1978; Kroeber 1925). Differentiation between the two groups is based upon linguistic dissimilarity rather than material or cultural variances. The village formed the primary sociopolitical unit of the Chumash, and each village had a chief who led by the authority of his inherited position. Rank and social status were apparently hereditary, at least to some degree (Kroeber 1925). Social ranking was reflected in burial practices where quantities and types of grave goods varied without regard to age or sex (Greenwood 1978).

Chumash material culture was diverse and made of a wide variety of stone, wood, plant, shell, and bone. Steatite and sandstone were used to make bowls and mortars, while chert and obsidian were used for projectile points and other flaked stone tools. Wood was used for bowls and mortars, as well as digging tools and bows, and for the construction of canoes. The plank canoes for which the Channel Chumash were famous apparently were not used in the heavier seas north of Point Conception (Greenwood 1978; Kroeber 1925). Rush (*Juncus* sp.) was the preferred material for basketry, which included storage baskets, hopper mortar components, hats, seed beaters, winnowing trays, and large tule mats. Bone and shell were used for a variety of items, including beads, fish hooks, pries, awls, pins, whistles, and wedges. Discs of Pismo clam (*Tivela stultorum*) shell were strung and used as money (Grant 1978; Kroeber 1925).

Environmental conditions along the coast north of Point Conception resulted in a habitat abundant with a diversity of exploitable resources. Chumash subsistence was based on the seasonal exploitation of various resources available along the coast and in the hills to the east. Acorns and other plant products provided the bulk of the food, but considerable use of land animal resources and marine resources also took place. Fish and sea mammals were utilized along with shellfish and other invertebrates (Greenwood 1978; Kroeber 1925).

By 1772, Spanish expeditions along the coast and the establishment of the Spanish mission system had contributed to the rapid disappearance of the native inhabitants. The Salinan and Chumash were pressed into service by the Spanish authorities, and introduced diseases claimed thousands of lives, destroying entire Chumash communities.

Prehistory

The tripartite cultural sequence of San Luis Obispo County was first developed by D.B. Rodgers (1929), and has been revised over the years by several scholars including Wallace (1955), Harrison (1964), Warren (1968), and, most recently, by C. King (1982, 1990). King's version has become the dominant nomenclature of the region based on Rodgers' three periods: Oak Grove, Hunting, and Canaliño. King retitled these the Early, Middle, and Late periods, and further divided the periods into phases.

The **Early Period** is divided into the Milling Stone Horizon and the Hunting Culture. The Milling stone Horizon, considered by Jones, Young, and Hildebrandt (2002) to be a separate period preceding the Early Period, was first identified by Wallace (1955). This horizon extends as far back as the Pleistocene/Holocene transition (circa 10,000 years before present [BP]) and persisted for several

thousand years. This period is dominated by grinding equipment, cobble tools, and a low frequency of bifaces and projectile points, indicating a lifeway reliant upon the collection and processing of vegetal and marine foods, with less emphasis on hunting. This horizon is followed by the Hunting Culture, which ranged from 5,500 to 3,000 BP. This culture is characterized by major changes in subsistence technology as evidenced by the introduction of mortar and pestle, the increase in number and variety of shell beads and ornaments, and the introduction of large side-notched projectile points. These abrupt changes in the archaeological record are attributed to the supposed arrival of a new population in this region from the desert regions of southeastern California (Warren 1968), western Alaska (Harrison 1964), or the Channel Islands (Lathrap and Troike 1984).

The **Middle Period**, from 3,000 to 1,000 BP, saw an increase in sociopolitical organization, trade, and technological development. This period is characterized by an increased array of shell beads and ornaments; the dominance of contracting stem projectile points; increased use of mortars and pestles; and the development of the plank canoe, circular shell fish hooks, and compound bone fishhooks (for deep water fishing and marine mammal hunting). Trade increased during this period as indicated by an increase of obsidian from sources east of the Sierra Nevada such as Coso and Casa Diablo.

The **Late Period**, from approximately 1,100 BP up to the early 19th century, is characterized by a series of droughts forcing settlement shifts and abrupt cultural change (Jones and Waugh 1995). In the Santa Barbara Channel, this period is marked by an intensification of maritime resources, the maintenance of large permanent coastal villages, marked growth in trade systems, and greater sociopolitical complexity. Chumash material culture reached its zenith during this period with many elaborate steatite artifacts such as pipes, effigies, and mortars, etc., many inlaid with shell beads (Hudson and Blackburn 1986). Bow and arrow technology is also introduced, indicated by the appearance of Desert Side-notched, Canaliño/coastal Cottonwood, and small, leaf-shaped projectile points (Jones 1993).

History

The project area was formerly a portion of the Rancho Santa Ysabel (+17,000 acres), granted on May 12, 1844, by Mexican Governor Manuel Micheltorena to Francisco Arce (Ohles 1997: 104-110). In 1848, at the end of the Mexican war, California was ceded to the United States and admitted to the Union in 1850. The 1870s saw the rise of the Paso Robles region as a tourist destination known for its numerous natural hot springs. The Southern Pacific Railroad arrived in 1886, and the town of Paso Robles was formally established. The turn of the century saw growth in agricultural (nut and fruit orchards) and cattle ranches and dairies. Agriculture and cattle continued to be a driving economical force in Paso Robles throughout the 20th century. More recently, vast numbers of wineries have established themselves in the region, which is known for its ideal growing climate.

The project area is currently an active cattle ranch. Historic map review of the 1948 Paso Robles USGS 7.5-minute quadrangle reveals at least six structures and a windmill within the southeastern portion of the project area. According to Singer (1994), these structures were destroyed by fire.

LEGISLATIVE AND REGULATORY CONTEXTS

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

CEQA applies to all discretionary projects undertaken or subject to approval by the State's public agencies (California Code of Regulations [CCR] Title 14(3) §15002(i)). Under the provisions of CEQA, “a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment” (CCR Title 14(3) §15064.5(b)).

CEQA §15064.5(a) defines a “historical resource” as a resource which meets one or more of the following criteria:

- Listed in, or eligible for listing in, the CRHR;
- Listed in a local register of historical resources (as defined at Public Resources Code [PRC] §5020.1(k));
- Identified as significant in a historical resource survey meeting the requirements of §5024.1(g) of the PRC; or
- Determined to be a historical resource by a project's lead agency (CCR Title 14(3) §15064.5(a)).

A historical resource consists of “Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California...Generally, a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets the criteria for listing in the California Register of Historical Resources” (CCR Title 14(3) §15064.5(a)(3)).

If the cultural resource in question is an archaeological site, CEQA (CCR Title 14(3) §15064.5(c)(1)) requires that the lead agency first determine if the site is a historical resource as defined in CCR Title 14(3) §15064.5(a). If the site qualifies as a historical resource, potential adverse impacts must be considered in the same manner as a historical resource (California Office of Historic Preservation 2001a:8). If the archaeological site does not qualify as a historical resource but does qualify as a unique archaeological site, then the archaeological site is treated in accordance with PRC §21083.2 (CCR Title 14(3) §15069.5(c)(3)). In practice, most archaeological sites that meet the definition of a unique archaeological resource will also meet the definition of a historical resource (Bass, Herson, and Bogdan 1999:105). CEQA defines a “unique archaeological resource” as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; or

- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC §21083.2(g)).

CEQA requires that historical resources and unique archaeological resources be taken into consideration during the CEQA planning process (CCR Title 14(3) §15064.5; PRC §21083.2). If feasible, adverse effects to the significance of historical resources must be avoided, or the effects mitigated (CCR Title 14(3) §15064.5(b)(4)). The significance of a historical resource is impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for the CRHR. If there is a substantial adverse change in the significance of a historical resource, the preparation of an environmental impact report may be required (CCR Title 14(3) §15065(a)).

If an impact to a historical or archaeological resource is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). Mitigation of significant impacts must lessen or eliminate the physical impact that the project will have on the resource. Generally, the use of drawings, photographs, and/or displays does not mitigate the physical impact on the environment caused by demolition or destruction of a historical resource. However, CEQA requires that all feasible mitigation be undertaken even if it does not mitigate impacts to a less than significant level (California Office of Historic Preservation 2001a:9; see also CCR Title 14(3) §15126.4(a)(1)).

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

Section 5024.1 of the PRC established the CRHR. Generally, a resource is considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the CRHR (CCR Title 14(3) § 15064.5(a)(3)). For a cultural resource to qualify for listing in the CRHR, it must be significant under one or more of the following criteria:

- Criterion 1:** Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Criterion 2:** Associated with the lives of persons important in California's past;
- Criterion 3:** Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Criterion 4:** Has yielded, or may be likely to yield, information important in prehistory or history.

In addition to being significant under one or more of these criteria, a resource must retain enough of its historic character and appearance to be recognizable as an historical resource and be able to convey the reasons for its significance (CCR Title 14 Section 4852(c)). Generally, a cultural resource must be 50 years or older to be eligible for the CRHR.

SAN LUIS OBISPO COUNTY GENERAL PLAN

The San Luis County General Plan, Conservation and Open Space Element, Section 4 (2010), states that the County has established four goals to identify and protect cultural and historical resources:

1. The County will have a strong, positive community image that honors its history and cultural diversity.
2. The County will promote public awareness and support for the preservation of cultural resources in order to maintain the County's uniqueness and promote economic vitality.
3. The County's historical resources will be preserved and protected.
4. The County's known and potential Native American, archaeological, and paleontological resources will be preserved and protected.

CALIFORNIA PUBLIC RESOURCES CODE §5097.5

California PRC §5097.5 prohibits excavation or removal of any "vertebrate paleontological site...or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands." Public lands are defined to include lands owned by or under the jurisdiction of the State or any city, county, district, authority or public corporation, or any agency thereof. Section 5097.5 states that any unauthorized disturbance or removal of archaeological, historical, or paleontological materials or sites located on public lands is a misdemeanor.

CALIFORNIA HEALTH AND SAFETY CODE §7050.5

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

METHODS

LSA conducted records searches, Native American consultation, a literature and map review, and a field survey. Each task is described below.

RECORDS SEARCHES

Central Coast Information Center

A records search (File No. 5914) of the project area and a 0.5-mile radius was conducted on September 3, 2013, by staff of the Central Coast Information Center (CCIC) of the California Historical Resources Information System, University of California, Santa Barbara (Appendix A). The CCIC, an affiliate of the State of California Office of Historic Preservation, is the official State repository of cultural resource records and reports for San Luis Obispo County.

As part of the records search, LSA also reviewed the following State inventories for cultural resources in and adjacent to the project area:

- *California Inventory of Historic Resources* (California Department of Parks and Recreation 1976);
- *Five Views: An Ethnic Historic Site Survey for California* (California Office of Historic Preservation 1988);
- *California Historical Landmarks* (California Office of Historic Preservation 1996);
- *California Points of Historical Interest* (California Office of Historic Preservation 1992); and
- *Directory of Properties in the Historic Property Data File* (California Office of Historic Preservation April 5, 2012). The directory includes the listings of the National Register of Historic Places, National Historic Landmarks, the CRHR, California Historical Landmarks, and California Points of Historical Interest.

Native American Heritage Commission

On August 21, 2013, LSA requested the NAHC conduct a review of their Sacred Lands File for any Native American cultural resources that might be affected by the proposed project and provide a list of interested Native American parties. The NAHC is the official state repository of Native American sacred site location records in California.

LITERATURE AND MAP REVIEW

LSA reviewed the following publications, maps, and websites for historical information about the project area and its vicinity:

- *California Place Names* (Gudde 1998);
- *Historic Spots in California* (Hoover et al. 1990);
- *Historical Atlas of California* (Hayes 2007);
- *Paso Robles, Calif.*, 7.5-minute topographic quadrangle (USGS 1948, 1978).

FIELD SURVEYS

On September 6 and 7, 2013, LSA archaeologists Leroy Laurie and Chad Jackson conducted an archaeological field survey of the project area. Mr. Laurie and Mr. Jackson surveyed the entire 210-acre project area with pedestrian transects spaced less than 20 meters (m) apart (Figure 4). Ground visibility was excellent (80 percent to 100 percent) throughout (Photograph 1). All exposed areas were searched for prehistoric cultural materials (e.g., stone tools, lithic debitage, and ground stone), historic artifacts (e.g., metal, glass, and ceramics), and soil discoloration that might indicate the presence of an archaeological midden. The survey was documented with notes, maps, and photographs.



Photograph 1: Overview of Central Portion of the Project Area Facing North

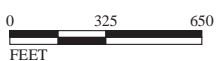


LSA

LEGEND

Project Location

FIGURE 4



SOURCE: Bing Maps (c.2010), Dan King Surveying (5/6/2013)

I:\ROL1301\GIS\SurveyCoverage.mxd (8/20/2013)

Phase I Archaeological Survey
 Justin Vineyards-Wisteria Project
 Paso Robles, San Luis Obispo County, California
 Survey Coverage Map

STUDY RESULTS

This section presents the results of the record searches, Native American consultation, literature and map review, and a field survey.

RECORD SEARCHES

Central Coast Information Center

The CCIC records search did not identify any previously documented cultural resources within the project area or within 0.5 mile. The records search identified 21 cultural resource surveys within a 0.5-mile radius of the project area, 4 of which included a portion of the project area (Appendix A). Of the 4, only 1 contained a significant portion of the project area (Singer 1994). Singer's (1994) survey area covered approximately 90 percent of the current project area and did not formally document any cultural resources.

Native American Heritage Commission and Consultation

Mr. Dave Singleton, NAHC Program Analyst, responded to LSA's original contact letter in a faxed letter dated August 21, 2013, that the Sacred Lands File did not indicate the presence of Native American cultural resources in the project area (Appendix B). To date, LSA has received the following responses from individuals included on the NAHC contact list who were contacted via letter:

- **Mona Tucker, Northern Chumash Tribe.** In a September 1, 2013, email response, Ms. Tucker stated that large populations of Northern Chumash peoples were known to inhabit the entirety of San Luis Obispo County. In a September 3, 2013, email response, LSA informed Ms. Tucker that at that time, the records search and field survey had not yet been conducted and that an update would be provided as soon as each task was completed. In a September 21, 2013 email, LSA informed Ms. Tucker that three archaeological sites and an isolate were identified within the project area. No further response from Ms. Tucker has been received to date.
- **Freddy Romero, Santa Ynez Band of Mission Indians.** During a September 3, 2013, telephone conversation, Mr. Romero stated he had no concerns about the project, but suggested LSA contact other tribes in the area.
- **Fred Collins, Northern Chumash Tribal Council.** Via email on September 15, 2013, Mr. Collins contacted LSA and stated that the Northern Chumash Tribal Council wanted to discuss the project. LSA left a voicemail with Mr. Collins on September 15, 2013. No further response from Mr. Collins has been received to date.

Copies of correspondence with the NAHC and a sample of the contact letters are provided in Appendix B.

LITERATURE AND MAP REVIEW

LSA reviewed ethnographic, archaeological, and historical information to determine the sensitivity for cultural resources in and adjacent to the project area. The publications and maps reviewed do not mention or depict any cultural resources in or adjacent to the project area.

The map review indicated that at least six historic-era buildings and a windmill were at one time within the project area. These structures are no longer present.

FIELD SURVEYS

Field surveys of the project area were conducted by LSA on September 6 and 7, 2013. The surveys were done to identify archaeological deposits in and adjacent to the project area. The survey was documented with field notes, maps, and photographs.

Historic Debris

Sparse historical archaeological debris (e.g., glass, ceramic, and various ferrous metals) was observed in very limited quantities within the project area. These materials are likely associated with the aforementioned historic-era structures visible on the 1948 *Paso Robles* 7.5-minute USGS quadrangle and are still present on the 1978 version (Figure 2). The buildings are no longer present. The highly diffuse nature and low quantities of historic materials are likely the result of the demolition and removal of the structures. Due to the disturbed nature and lack of concentrated deposits/scatters, these materials are not considered a historical archaeological site and do not warrant formal recordation; they are given no further consideration in the report due to their lack of potential to qualify as historical or unique archaeological resources under CEQA.

Prehistoric Archaeological Sites and Isolates

The field survey identified three prehistoric archaeological sites and a single prehistoric isolate in the project area (Appendix C: Figure 5). See Confidential Appendix C for site locations and complete Department of Parks and Recreation 523 Series forms prepared for each site and the isolated artifact. A brief description of each discovery is provided below.

JVW-1. JVW-1 is a low-density (less than one flake/m²) lithic debitage and tool scatter that measures 40 m (N/S) by 24 m (E/W). Site constituents represent multiple tool production stages and are comprised primarily of locally available Monterey Chert. Identified artifacts included nine primary flakes, eight secondary flakes, one core fragment, and a single early-stage biface fragment. Soils within the site appear slightly darker than the surrounding vicinity. The site is situated on a relatively flat terrace west of Huer Huero Creek. Modern disturbances include recent disking/plowing and trash dumping.

JVW-2. JVW-2 is a low-density (less than one flake/m²) lithic debitage and tool scatter that measures 45 m (N/S) x 20 m (E/W). Site constituents represent multiple tool production stages and consist

primarily of locally available Monterey Chert. Identified artifacts included 15 primary flakes, 12 secondary flakes, three core fragments, a bifacially utilized, shaped sandstone handstone, and a contracting-stemmed projectile point fragment. The site is situated on a flat overlooking Huer Huero Creek to the east. Modern disturbances include recent disking/plowing.

JVW-3. JVW-3 is a low-density lithic debitage and tool scatter measuring 30 m (N/S) x 40 m (E/W) (less than one flake/m²). Site constituents represent multiple tool production stages and are comprised primarily of locally available Monterey Chert. Identified artifacts included two primary flakes, nine secondary flakes, one core fragment, and a bifacially utilized, shaped sandstone handstone fragment. The site is situated on a flat overlooking Huer Huero Creek to the east. Modern disturbances include recent disking/plowing and the construction of a small corral and installation of a water tank.

JVW-ISO-1. JVW-ISO-1 is a cream-colored, leaf-shaped Monterey chert projectile point fragment that measures 4.5 centimeters (cm) x 2.0 cm x 0.8 cm. No other artifacts or features were observed in the vicinity of the isolate.

CONCLUSION

The results of the study indicate that cultural resources that may meet the CEQA definition of historical resources and/or unique archaeological resources are within the project area.

As currently proposed, two of the identified archaeological sites (JVW-1 and JVW-2) and the isolated artifact (JVW-ISO-1) are outside (100-150 m east) of the proposed development areas (i.e., no grading and/or construction are proposed at their locations). JVW-3, however, is within proposed "New Lot No. 3" (Figure 3). It is LSA's understanding that construction/grading plans are currently still under development, and although JVW-3 is within proposed New Lot No. 3, project engineers are attempting to design the current project to avoid all potential direct impacts to JVW-3.

The project area is considered highly sensitive for the presence of prehistoric archaeological cultural resources due to the newly identified archaeological sites and an isolated artifact. As such, in accordance with the goals of the County of San Luis Obispo's Open Space element regarding the treatment of Native American affiliated resources, where feasible, efforts should be made to avoid, protect, and preserve the newly identified archaeological sites and isolated artifact. The recommendations presented in the next section address the potential for impacts to these cultural resources in the event that project plans change or avoidance is not possible.

RECOMMENDATIONS

Project implementation is not anticipated to result in impacts to three of the identified archaeological cultural resources (JVW-1, JVW-2, and JVW-ISO-1), as these are located well outside of proposed development areas (see Figure 3 and Appendix C: Figure 5). JVW-3, however, is within proposed New Lot No. 3 and could be subject to disturbance. Project engineers are currently attempting to exclude JVW-3 from the impact area. In the event that this exclusion is not feasible, site-specific measures are provided below.

SITE-SPECIFIC MITIGATION MEASURES

JVW-1, JVW-2, and JVW-3

As currently proposed, the project will not result in impacts to these archaeological cultural resources. In the event that the project footprint changes such that ground-disturbing impacts will occur within 100 feet of the recorded boundaries of JVW-1, -2, or -3, the following actions are recommended prior to those ground-disturbing activities:

1. The applicant should retain the services of a qualified archaeologist to determine whether impacts to JVW-1, -2, or -3 will occur as a result of the activities proposed as part of the project modifications.
2. If the archaeologist demonstrates that direct impacts will result due to project modifications, a Phase II archaeological investigation should be conducted by a professional archaeologist to evaluate the eligibility of those portions of the archaeological deposits subject to impact for inclusion in the CRHR.
3. If that portion of the archaeological deposit is eligible for the CRHR, then the project should be modified to avoid impacting that portion. If impact avoidance is not feasible, a Phase III data recovery investigation should be conducted by a professional archaeologist to offset the loss of scientific data that will result from the disturbance of the deposit.
4. For each investigation conducted pursuant to these recommendations (e.g., Phase II and Phase III), a report should be prepared to document the methods, analysis, and findings of the study. The report(s) would include Department of Parks and Recreation 523 update forms, to be filed with the CCIC.
5. Step Nos. 1–4, above, should be implemented whenever a project modification results in proposed activities that would encroach on the 100-foot radius around JVW-1, -2, or -3.

JVW-ISO-1

As currently proposed, the current project will not result in impacts to this isolated artifact. Non-unique isolated artifacts do not qualify as historical resources or unique archaeological sites under CEQA. However, given the presence of known archaeological sites in the vicinity of JVW-ISO-1, the

potential for subsurface deposits associated with the isolate exists. As such, the following is recommended in the event that modifications to the current project or future developments may result in ground disturbance within 100 feet of the isolate:

An Extended Phase I subsurface survey should be conducted by a qualified archaeologist to determine whether subsurface deposits associated with the isolated artifact are within proposed disturbance areas. If subsurface archaeological deposits are identified as a result of the Extended Phase I study, Phase II or Phase III excavation may be required.

PROJECT-WIDE MITIGATION MEASURES

In addition to the site-specific measure provided above, and given the overall heightened sensitivity of the project area for the presence of archaeological cultural resources, it is recommended that prior to the issuance of a grading permit, an Archaeological Monitoring Plan (AMP) be developed for those areas of the project subjected to ground disturbance.

ACCIDENTAL DISCOVERY

If deposits of prehistoric or historical archaeological materials are encountered during project activities, all work within 25 feet of the discovery should be redirected, and a qualified archaeologist should be contacted to assess the situation, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. The project proponent should also be notified. Project personnel should not collect or move any archaeological materials or human remains and associated materials.

Impacts to archaeological deposits should be avoided by project activities. If such deposits cannot be avoided, they should be evaluated for their CRHR eligibility, under the direction of a qualified professional archaeologist, to determine if they qualify as a historical resource under CEQA. If the deposit is not eligible, a determination should be made as to whether it qualifies as a "unique archaeological resource" under CEQA. If the deposit is neither a historical nor unique archaeological resource, avoidance is not necessary. If the deposit is eligible for the CRHR, or is a unique archaeological resource, it will need to be avoided by project actions that may result in impacts, or such impacts must be mitigated. Mitigation may consist of, but is not limited to, recording the resource; recovery and analysis of archaeological deposits; preparation of a report of findings; and accessioning recovered archaeological materials at an appropriate curation facility. Public educational outreach may also be appropriate.

Upon completion of the assessment, the archaeologist should prepare a report documenting the methods and results of the investigation, and provide recommendations for the treatment of the archaeological materials discovered. The report should be submitted to the client and the CCIC.

Prehistoric materials can include flaked-stone tools (e.g., projectile points, knives, or choppers) or obsidian, chert, basalt, or quartzite tool-making debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone milling equipment (e.g., mortars, pestles, or handstones). Prehistoric sites often contain human remains. Historical materials can include wood, stone, concrete,

or adobe footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal, and other refuse.

Human Remains

If human remains are encountered during project activities, work within 25 feet of the discovery should be redirected and the San Luis Obispo County Coroner notified immediately. At the same time, an archaeologist should be contacted to assess the situation and consult with agencies as appropriate. The project proponent should also be notified. Project personnel should not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner must notify the NAHC within 24 hours of this identification. The NAHC will identify a Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

Upon completion of the assessment, the archaeologist should prepare a report documenting the methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the Most Likely Descendant. The report should be submitted to the County of San Luis Obispo and the CCIC.

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- 2000 Climate and Vegetation. In: Fitzgerald, R. T. *Cross Creek: An Early Holocene/Millingstone Site*. California State Water Project, Coastal Branch Series Paper No. 12. San Luis Obispo County Archaeological Society.

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- 1995 *Central California Coastal Prehistory: A View from Little Pico Creek*. Perspectives in California Archaeology, Volume 3. Institute of Archaeology, University of California, Los Angeles.

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- 1988 *San Luis Obispo County, Looking Backward into the Middle Kingdom*. Windsor Publications, Inc., Salinas, California.

Kroeber, Alfred L.

- 1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Smithsonian Institution, Washington, D.C. Reprinted 1976 by Dover Publications, New York.

Mason, J. Alden

- 1912 The Ethnology of the Salinan Indians. *University of California Publications in American Archaeology and Ethnology* 10(4):97-240. Berkeley.

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- 2005 *An Ethnogeography of the Salinan and Northern Chumash Communities – 1769 to 1810*. Far Western Anthropological Research Group, Inc. Submitted to California Department of Transportation, District 5.

National Park Service

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- 1997 *The Lands of Mission San Miguel*. Friends of the Adobes, Inc., San Miguel, California.

Orsi, Richard J.

- 2005 *Sunset Limited: The Southern Pacific Railroad and the Development of the American West, 1850-1930*. University of California Press, Berkeley, California.

San Luis Obispo County

- 2010 San Luis Obispo County, Conservation and Open Space Element. Electronic document, <http://www.slocounty.ca.gov/Assets/PL/Elements/COSE.pdf>, accessed August 28, 2013.

U.S. Geological Survey

- 1948 *Paso Robles, Calif., 7.5-minute topographic quadrangle*. Photorevised 1978. U.S. Geological Survey, Washington, D.C.

APPENDIX A

RECORDS SEARCH RESULTS

California
Archaeological
Department of
Inventory



Anthropology
SAN LUIS OBISPO AND
SANTA BARBARA COUNTIES

Central Coast Information Center
University of California, Santa Barbara
Santa Barbara, CA 93106-3210
(805) 893-2474
FAX (805) 893-8707
Email: centralcoastinfo@gmail.com

September 3, 2013

Leroy Laurie
LSA Associates, Inc.
1998 Santa Barbara St. Suite 120
San Luis Obispo CA 93401

Dear Mr. Laurie,

Enclosed are the results of the record search you requested for the Justin Vineyards-Wisteria Project, LSA Project # ROL 1301. Our records were searched for all archaeological sites, historical resources, and previous cultural resource surveys within a one-half mile radius of the project area.

In this search zero archaeological site(s), and twenty-one cultural resource survey(s) were found. The site and survey locations are mapped onto portions of the Paso Robles quad(s). A bibliography of the survey(s) is included. A search of the inventories for the State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Historical Landmarks, California Points of Historic Interest, California OHP Archaeological Determinations of Eligibility, and the Caltrans State and Local Bridge Surveys yielded zero property evaluation(s) within the search radius.

According to our records, the property has not been surveyed. Therefore a cultural resource survey is recommended.

Please contact me if you have any questions about this search.

Sincerely,

A handwritten signature in blue ink that reads "Allison L. Jaqua". The signature is fluid and cursive, with the first name being the most prominent.

Allison L. Jaqua
Assistant Coordinator

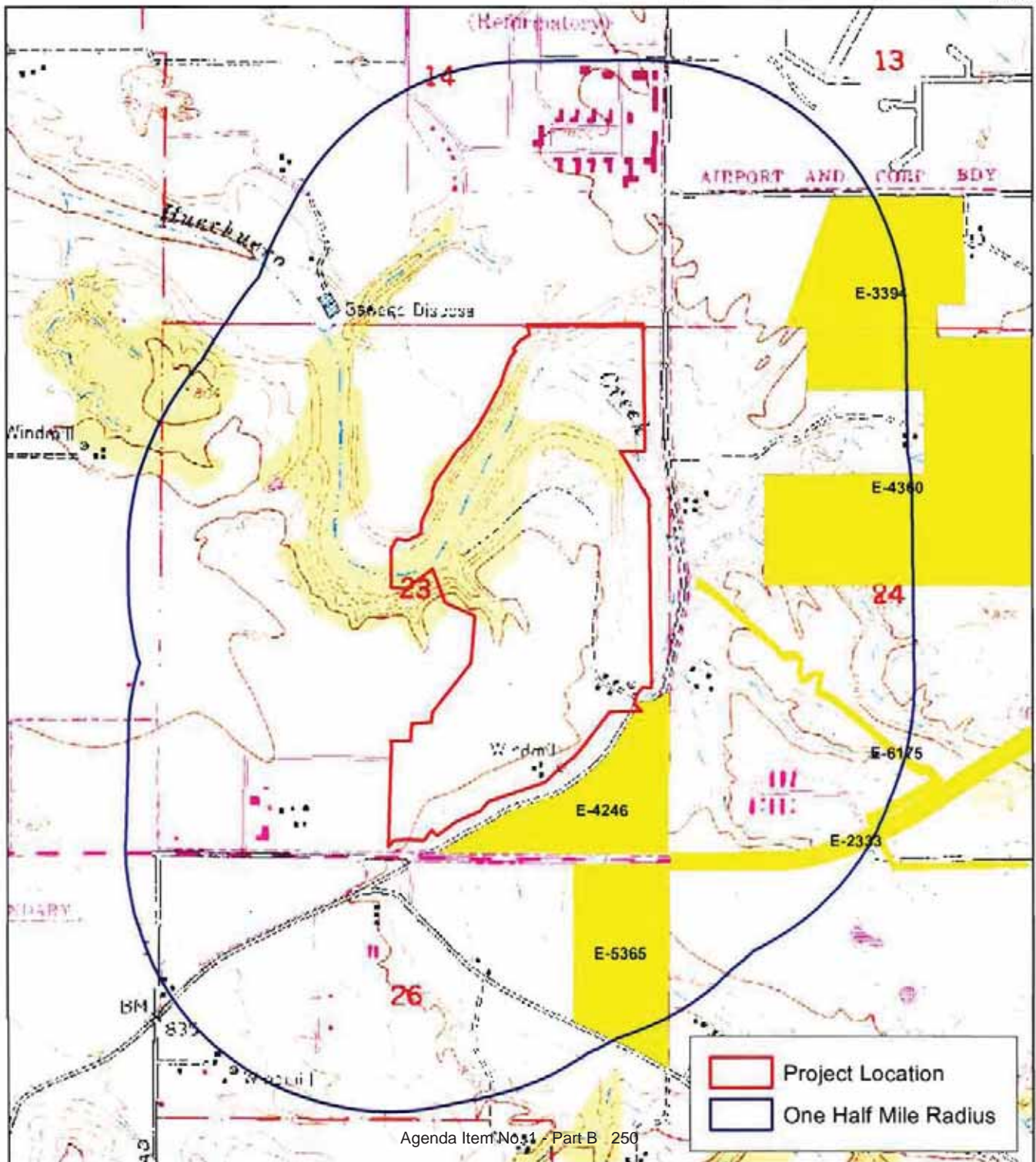
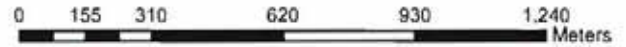
Justin Vineyards-Wisteria Project LSA Project # ROL 1301

Customer Name: LSA Associates, Inc.
Project Location: Paso Robles



Central Coast Information Center
Department of Anthropology
University of California
Santa Barbara, CA 93106-3210
(805) 893-2474
(805) 893-8707 FAX

Reports Map 1 of 3



Justin Vineyards-Wisteria Project LSA Project # ROL 1301

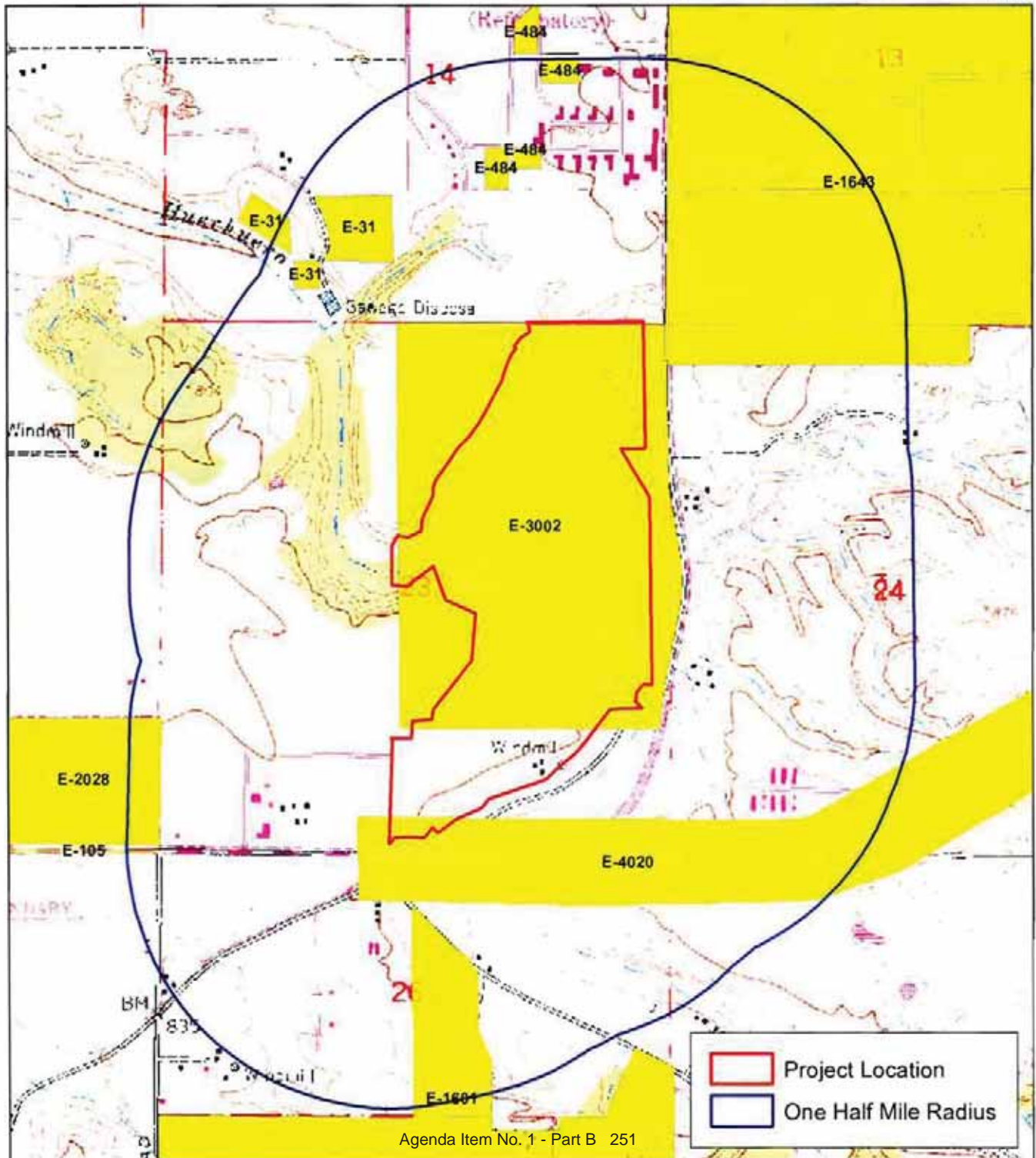
Customer Name: LSA Associates, Inc.
Project Location: Paso Robles



Central Coast Information Center
Department of Anthropology
University of California
Santa Barbara, CA 93106-3210
(805) 893-2474
(805) 893-8707 FAX

Reports Map 2 of 3

0 155 310 620 930 1,240
Meters



Justin Vineyards-Wisteria Project

LSA Project # ROL 1301

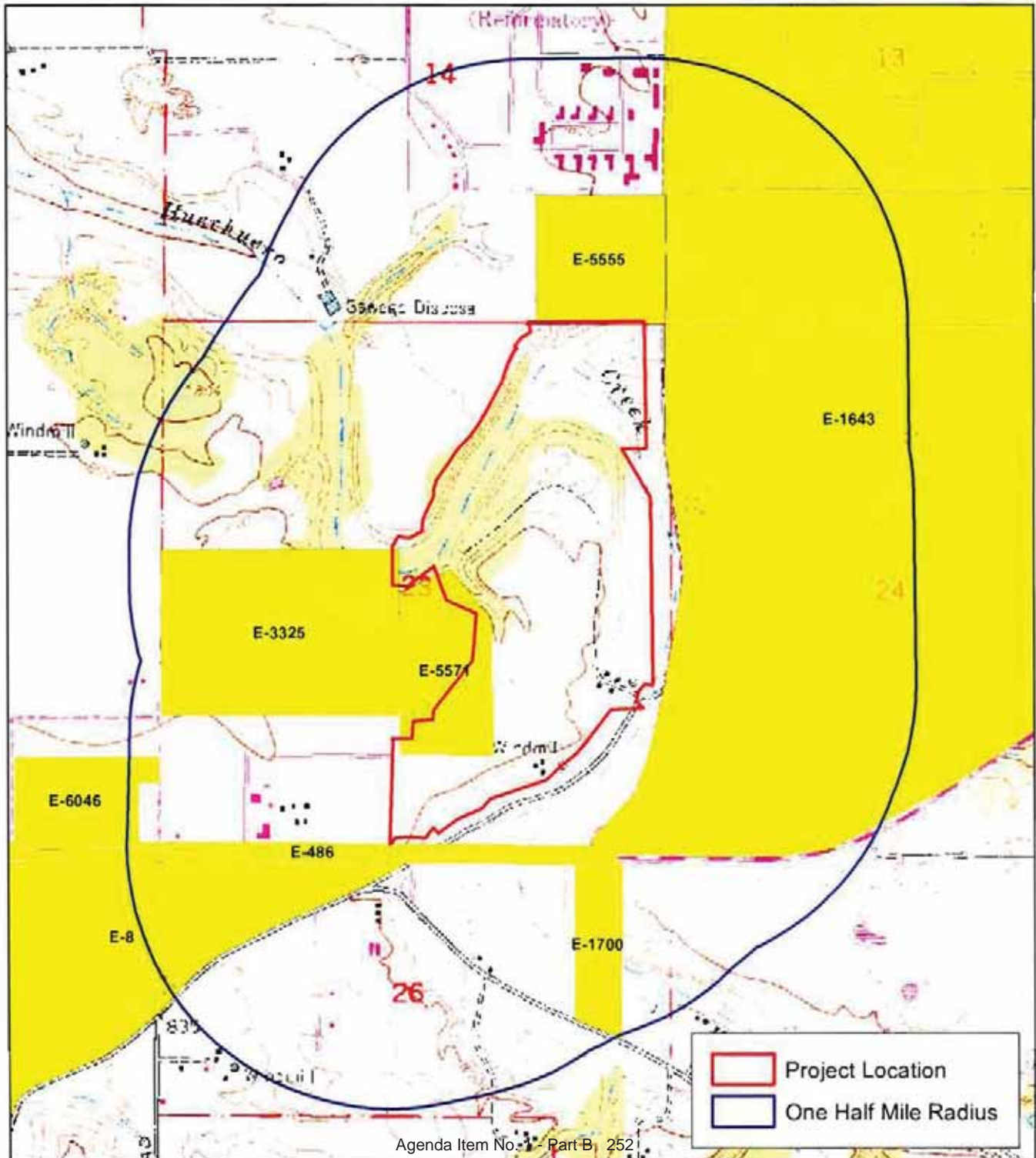
Customer Name: LSA Associates, Inc.
Project Location: Paso Robles

Central Coast Information Center
Department of Anthropology
University of California
Santa Barbara, CA 93106-3210
(805) 893-2474
(805) 893-8707 FAX

Reports Map 3 of 3



0 155 310 620 930 1,240
Meters



APPENDIX B

NATIVE AMERICAN CORRESPONDENCE

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION

915 Capitol Mall, RM 364
Sacramento, CA 95814
(916) 653-4082
(916) 657-5390 – Fax
nahc@pacbell.net

Information Below is Required for a Sacred Lands File Search

Project: JustinVineyards-Wisteria Project

County: San Luis Obispo

USGS Quadrangle(s) Name(s): Paso Robles

Township: 26 South; Range: 12 East; Section 23

Company/Firm/Agency: LSA Associates, Inc.

Contact Person: Leroy Laurie

Street Address: 1998 Santa Barbara Street Suite 120

City: San Luis Obispo Zip: 93401

Phone: 805.440.8712

Fax: 805.782.0796

Email: leroy.laurie@lsa-assoc.com

Project Description:

The applicant plans to develop approximately 210 acres north of Highway 46 and west of Airport Road in rural Paso Robles, San Luis Obispo County, California.

STATE OF CALIFORNIA

Edmund G. Brown, Jr. Governor

**NATIVE AMERICAN HERITAGE
COMMISSION**

1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916) 373-3715
Fax (916) 373-5471
www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

August 21, 2013

Mr. Leroy Laurie, RPA
LSA ASSOCIATES, INC.
1998 Santa Barbara Street, Suite 120
San Luis Obispo, CA 93401

Sent by FAX to: (805) 782-0796
No. of Pages: 5

Re: Request for Sacred Lands File Search and Native American Contacts list for the
"Justin Vinoyards-Wisteria Project," located on 210-acres near the City of
Paso Robles in rural San Luis Obispo County, California.

Dear Mr. Laurie:

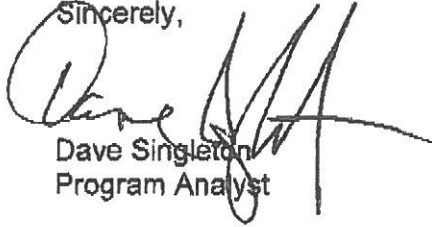
A record search of the NAHC Sacred Lands File failed to indicate the presence of Native American traditional cultural place(s) in the project sites submitted, based on the USGS coordinates submitted as part of the 'Area of Potential Effect. (APE). However, this area is known to local tribes to be very culturally sensitive. Also, note that the NAHC SLF Inventory is not exhaustive; therefore, the absence of archaeological or Native American sacred places does not preclude their existence. Other data sources for Native American sacred places/sites should also be contacted. A Native American tribe of individual may be the only sources of presence of traditional cultural places or sites.

In the 1985 Appellate Court decision (170 Cal App 3rd 604; *EPIC v. Johnson*), the Court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.

Attached is a list of Native American tribes, individuals/organization who may have knowledge of cultural resources in or near the project area. As part of the consultation process, the NAHC recommends that local governments and project developers contact the tribal governments and individuals to determine if any cultural places might be impacted by the proposed action. If a response is not received in two weeks of notification the NAHC requests that a follow telephone call be made to ensure that the project information has been received.

If you have any questions or need additional information, please contact me at (916) 373-3715.

Sincerely,

A handwritten signature in black ink, appearing to read "Dave Singleton", is written over the typed name and title.

Dave Singleton
Program Analyst

Attachments

**Native American Contacts
San Luis Obispo County
August 21, 2013**

Beverly Salazar Folkes
1931 Shadybrook Drive
Thousand Oaks, CA 91362
folkes9@msn.com
805 492-7255
(805) 558-1154 - cell
folkes9@msn.com

Chumash
Tataviam
Fernandeño

Judith Bomar Grindstaff
63161 Argyle Road
King City, CA 93930
(831) 385-3759-home

Salinan

Santa Ynez Band of Mission Indians
Vincent Armenta, Chairperson
P.O. Box 517
Santa Ynez, CA 93460
varmenta@santaynezchumash.
(805) 688-7997
(805) 686-9578 Fax

Chumash

San Luis Obispo County Chumash Council
Chief Mark Steven Vigil
1030 Ritchie Road
Grover Beach CA 93433
(805) 481-2461
(805) 474-4729 - Fax

Chumash

Barbareno/Ventureno Band of Mission Indians
Julie Lynn Tumamait-Stennslie, Chair
365 North Poli Ave
Ojai, CA 93023
jtumamait@sbcglobal.net
(805) 646-6214

Chumash

Peggy Odom
1339 24th Street
Oceano, 93445
(805) 489-5390

Chumash

Lei Lynn Odom
1339 24th Street
Oceano, CA 93445
(805) 489-5390

Chumash

Salinan Tribe of Monterey, San Luis Obispo Counties
John W. Burch, Traditional Chairperson
14650 Morro Road
Atascadero, CA 93422
salinantribe@aol.com
805-460-9202
805 235-2730 Cell
805-460-9204

Salinan
Chumash

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Justin Vineyards-Wisteria Project; located near Paso Robles in San Luis Obispo County, California for which a Sacred Lands file search and Native American Contacts list were requested.

**Native American Contacts
San Luis Obispo County
August 21, 2013**

Santa Ynez Tribal Elders Council
Adelina Alva-Padilla, Chair Woman
P.O. Box 365 Chumash
Santa Ynez , CA 93460
elders@santaynezchumash.org
(805) 688-8446
(805) 693-1768 FAX

Salinan Nation Cultural Preservation Association
Robert Duckworth, Environmental Coordinator
4777 Driver Rd. Salinan
Valley Springs CA 95252
dirobduck@thegrld.net
831-578-1852

Randy Guzman - Folkes
6471 Cornell Circle Chumash
Moorpark , CA 93021 Fernandefio
ndnRandy@yahoo.com Tataviam
(805) 905-1675 - cell Shoshone Paiute
Yaqui

Coastal Band of the Chumash Nation
Michael Cordero, Chairperson
P.O. Box 4464 Chumash
Santa Barbara CA 93140
CbcnTRIBALCHAIR@gmail.com

Xolon Salinan Tribe
Johnny R Eddy Jr, Chairperson
3179 Garrity Way #734 Salinan
Richmond , CA 94806
831-210-9771

yak tityu tityu - Northern Chumash Tribe
Mona Olivas Tucker, Chairwoman
660 Camino Del Rey Chumash
Arroyo Grande CA 93420
(805) 489-1052 Home
(805) 748-2121 Cell
olivas.mona@gmail.com

Salinan Nation Cultural Preservation Association
Doug Alger, Cultural Resources Coordinator
PO Box 56 Salinan
Lockwood , CA 93932
fabbq2000@earthlink.net

Matthew Darian Goldman
495 Mentone Chumash
Grover Beach CA 93433
805-748-6913

This list is current only as of the date of this document.

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This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Justin Vineyards-Wisteria Project, located near Paso Robles in San Luis Obispo County, California for which a Sacred Lands file search and Native American Contacts list were requested.

**Native American Contacts
San Luis Obispo County
August 21, 2013**

Santa Ynez Band of Mission Indians
Tribal Admin/Counsel Sam Cohen
P.O. Box 517 Chumash
Santa Ynez , CA 93460
info@santaynezchumash.org

(805) 688-7997
(805) 686-9578 Fax

Frank Arredondo
PO Box 161 Chumash
Santa Barbara CA 93102
ksen_sku_mu@yahoo.com

Salinan Nation Cultural Preservation Association
Gregg Castro, Administrator
5225 Roeder Road Salinan
San Jose , CA 95111
glcastro@pacbell.net
(408) 219-2754

Santa Ynez Tribal Elders Council
Freddie Romero, Cultural Preservation Constnt
P.O. Box 365 Chumash
Santa Ynez , CA 93460
805-688-7997, Ext 37
freddyromero1959@yahoo.com

Salinan-Chumash Nation
Xielolixii
3901 Q Street, Suite 31B Salinan
Bakersfield , CA 93301 Chumash
408-966-8807 - cell

Barbareno/Ventureno Band of Mission Indians
Kathleen Pappo
2762 Vista Mesa Drive Chumash
Rancho Pales Verdes CA 90275
310-831-5295

Northern Chumash Tribal Council
Fred Collins, Spokesperson
67 South Street Chumash
San Luis Obispo CA 93401
fcollins@northernchumash.org
(805) 801-0347 (Cell)

Barbareno/Ventureno Band of Mission Indians
Raudel Joe Banuelos, Jr.
331 Mira Flores Court Chumash
Camarillo , CA 93012
805-987-5314

This list is current only as of the date of this document.

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This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Justin Vineyards-Wictoria Project, located near Paso Robles in San Luis Obispo County, California for which a Sacred Lands file search and Native American Contacts list were requested.

**Native American Contacts
San Luis Obispo County
August 21, 2013**

Coastal Band of the Chumash Nation
Janet Darlene Garcia
P.O. Box 4464 Chumash
Santa Barbara CA 93140
805-689-9528

Coastal Band of the Chumash Nation
Crystal Baker
P.O. Box 723 Chumash
Atascadero , CA 93423
805-466-8406

Coastal Band of the Chumash Nation
Michael Cordero
5246 El Carro Lane Chumash
Carpinteria , CA 93013
805-684-8281

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 6097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Justin Vineyards-Wisteria Project; located near Paso Robles in San Luis Obispo County, California for which a Sacred Lands file search and Native American Contacts list were requested.

August 28, 2013

Santa Ynez Tribal Elders Council
Adelina Alva-Padilla, Chair Woman
PO Box 365
Santa Ynez, CA 93460

Subject: Justin Vineyards-Wisteria Project, Paso Robles, San Luis Obispo County, California
(LSA Project # ROL1301).

Dear Ms. Alva-Padilla:

Kirk Consulting has retained LSA Associates, Inc. (LSA) to prepare cultural resources documentation consisting of an Archaeological Survey Report for the Justin Vineyards-Wisteria Project in Paso Robles, San Luis Obispo County, California (project). The 210-acre project site is located at the eastern terminus of Wisteria Lane, north of State Route 46 in Paso Robles, California as depicted on the accompanying USGS *Paso Robles, California 7.5'* topographic map. The project site is currently undeveloped. The proposed project would include the development of a portion of the 210 acres, while the remainder would remain open-space.

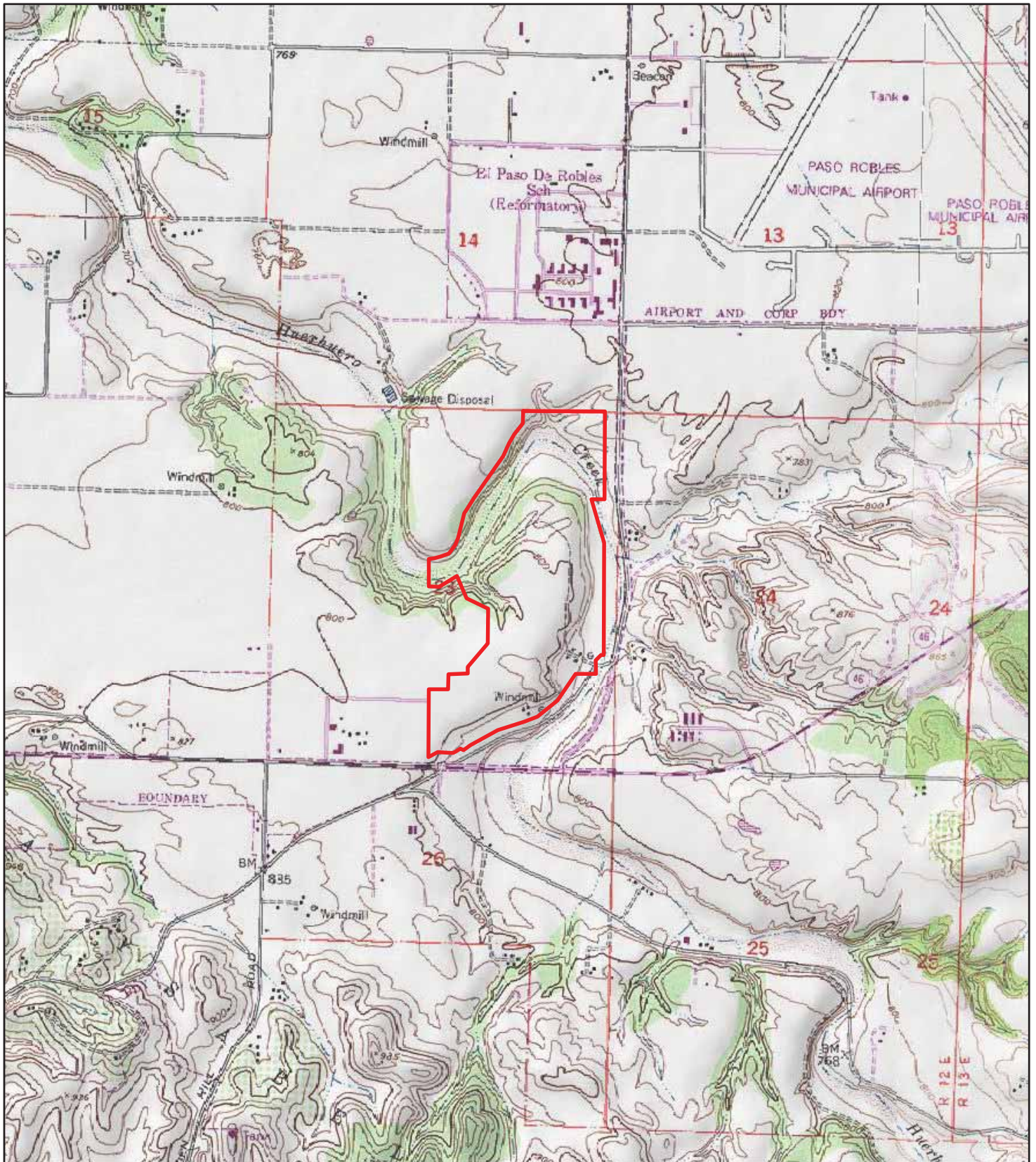
Your contact information was included in a response to LSA's inquiry to the California Native American Heritage Commission about tribal organizations who may have special knowledge about cultural resources. Please notify me if you or your organization has any specific knowledge about cultural resources the vicinity of the project area or concerns about potential effects to such resources. I can be reached at 805-440-8712 or via email at <leroy.laurie@lsa-assoc.com>. I look forward to hearing from you. Thank you.

Sincerely,

LSA ASSOCIATES, INC.

A handwritten signature in black ink that reads "Leroy Laurie". The signature is written in a cursive, slightly slanted style.

Leroy Laurie
Staff Archaeologist

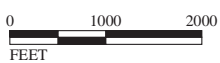


LSA

LEGEND

Project Location

FIGURE 2



SOURCE: Dan King Surveying (5/6/2013), USGS 7.5' Quad - Paso Robles (1979), CA

I:\ROL1301\GIS\ProjectLocation.mxd (8/20/2013)

Phase I Archaeological Survey
 Justin Vineyards-Wisteria Project
 Paso Robles, San Luis Obispo County, California
 Project Location Map



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From: Leroy Laurie
To: Fred Collins
Cc:
Subject: RE: Justin Vineyards
Attachments:

Thanks Fred, I'll give you a holler today.

Regards,
Leroy

-----Original Message-----
From: Fred Collins [<mailto:fcollins@northernchumash.org>]
Sent: Sun 9/15/2013 8:53 AM
To: Leroy Laurie
Subject: Justin Vineyards

Hello Leroy,

NCTC want to talk about this project.

Be well,

Fred Collins
Tribal Administrator
NCTC Northern Chumash Tribal Council
67 South Street, San Luis Obispo, CA 93401
(805) 801-0347 <<http://www.northernchumash.org/>> www.NorthernChumash.org
Educational Services & Environmental Consulting



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- Log Off

Reply Reply to all Forward | X | Close | Help

You replied on 9/23/2013 2:47 PM.

From: Leroy Laurie
To: Mona Tucker
Cc:
Subject: RE: Justin Vineyards - Wisteria Project, Paso Robles, Ca. Lsa Project # ROL:1301
Attachments:

Hi Mona, thank you for the response. We have requested a records search, and have not yet received the results. Upon receipt of the search, we'll conduct the field survey.

I can send you an update of the field effort when we're finished out there if you like.

Regards,
Leroy

-----Original Message-----

From: Mona Tucker [<mailto:olivas.mona@gmail.com>]
Sent: Sun 9/1/2013 2:49 PM
To: Leroy Laurie
Subject: Justin Vineyards - Wisteria Project, Paso Robles, Ca. Lsa Project # ROL:1301

Leroy:

Re: Justin vineyards - Wisteria Project, Paso Robles, Ca. Lsa Project #
RO:1301

As we all know there was a large population of Northern Chumash peoples throughout the area generally described as SLO County including the area described in your letter of August 28, 2013.

Can you please tell me if you've conducted a surface survey and a records search and the results the research?

Thank you,
Mona

Mona Olivas Tucker, Chairwoman
yak tityu tityu - Northern Chumash Tribe
660 Camino Del Rio



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Reply Reply to all Forward X Close Help

From: Leroy Laurie
To: Mona Tucker
Cc:
Subject: RE: Justin Vineyards - Wisteria Project, Paso Robles, Ca. Lsa Project # ROL:1301
Attachments:

Hi Mona,

I wanted to let you know that we conducted the field survey for this project. The records search didn't identify any resources with the project area. However, we encountered three sensitive projectile point. I am currently working on the report. A recommendation that each of these resources be completely avoided will be provided in the report. I met with the developer

Please contact me if you'd like additional information on the project.

-Leroy

805 440 -8712

-----Original Message-----

From: Leroy Laurie
Sent: Tue 9/3/2013 7:26 AM
To: Mona Tucker
Subject: RE: Justin Vineyards - Wisteria Project, Paso Robles, Ca. Lsa Project # ROL:1301

Hi Mona, thank you for the response. We have requested a records search, and have not yet received the results. Upon receipt of the search, we'll conduct the field survey.

I can send you an update of the field effort when we're finished out there if you like.

Regards,
Leroy

-----Original Message-----

From: Mona Tucker [<mailto:olivas.mona@gmail.com>]
Sent: Sun 9/1/2013 2:49 PM
To: Leroy Laurie
Subject: Justin Vineyards - Wisteria Project, Paso Robles, Ca. Lsa Project # ROL:1301



WATER SUPPLY EVALUATION

PASO ROBLES WISTERIA PROJECT

May 31, 2016



2490 Mariner Square Loop, Suite 215
Alameda, CA 94501
510.747.6920

www.toddgroundwater.com

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1. INTRODUCTION

This Water Supply Evaluation (WSE) was prepared for the Wisteria Project (Project) located in eastern Paso Robles north of Highway 46 East and east of Golden Hills Road (**Figure 1**). The site is currently vacant and used only for grazing. The Wisteria Project will consist of subdividing 3 existing parcels into 13 lots and one remainder parcel. The lots range in size from about 2.2 to 13.9 acres and the remainder parcel is 134.7 acres.

The total Project area is about 212 acres. The 13 lots will encompass 69.1 acres plus about 8.2 acres of right-of-way designated land. A General Plan Amendment is needed to re-designate land use categories and rezone the property to Commercial, Planned Industrial, and Business Park. The Project is within the City's Airport Land Use Plan (ALUP), which sets limits on maximum land use densities and minimum percent open space for various Airport Zones within the Project area.

The City will provide potable water supply and wastewater collection to the Project. Recycled water may be available in the future but, because of the uncertainty of a potential customer, its use will not be included in this analysis.

The City of Paso Robles has adopted an Urban Water Management Plan (UWMP) that details City water supplies and demands to the year 2035 (Todd, 2011). The Wisteria Project is not included in the UWMP.

This WSE was prepared in accordance with the City's Rules and Regulations for implementing projects subject to the California Environmental Quality Act (CEQA). The primary purpose of this WSE is to provide an independent evaluation of the Project's water needs and impacts on City water supplies. It documents Project water demand and available water supply, and determines if there is sufficient water supply to meet future water demands within the Project area and within the City's water supply service area under normal and dry hydrologic conditions for the next 20 years.

1.1. PROPOSED PROJECT

There are no specific development plans for the lots at this time. However, to estimate potential Project water use at buildout, several development assumptions were made based on maximum land use densities and minimum percent open space for various Airport Zones within the Project area. Portions of the Project are in ALUP Zones 2 or 4 which have maximum land use densities of 20 or 40 persons/lot.

Figure 2 is a general, conceptual plan for the Project. Potable water and wastewater collection will be provided by the City. The Project is planned to consist of development of Lots 1-13 (APNs 025-435-029, 030, 031).

1.2. BACKGROUND

The City of Paso Robles requires that certain CEQA documents (e.g., an Environmental Impact Report or a Mitigated Negative Declaration) be informed by an independent evaluation of the project's water supply needs and impacts on the City's water supply as set forth in the current UWMP. This requirement applies to all general plan amendments that propose an increase in residential, commercial, and/or industrial intensity and all annexations that have not been approved by the City Council as of January 1, 2014. Each independent evaluation is to be prepared by a consultant of the City's choice based on demonstrated competence in water supply evaluation and familiarity with the UWMP. The City will determine the scope of work for said evaluation, which may include elements specified in California Water Code Sections 10910 et seq.

The California Water Code Section 10910 (also termed Senate Bill 610 or SB610) requires that a Water Supply Assessment be prepared for a project that is subject to CEQA and is considered a project subject to SB610 as defined in Water Code Section 10912. The Wisteria Project is subject to CEQA, but is not subject to SB610 according to Water Code Section 10912. Therefore, this Wisteria Project water supply analysis (required under the City's CEQA rules and regulations) is a water supply *evaluation* (WSE) rather than a water supply *assessment*. While a WSE may not be subject to all the requirements of SB610, the City has requested that this WSE provide information consistent with requirements of SB610.

Under SB610, documentation of water supply sources, quantification of water demands, evaluation of drought impacts, and provision of a comparison of water supply and demand are required to form the basis for an assessment of water supply sufficiency. This WSE follows the guidelines set out in the Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 and subsequent clarification posted on the California Department of Water Resources website (CDWR, 2013).

A foundational document for preparation of a Water Supply Assessment or a WSE is an UWMP; the City has prepared and adopted a 2010 UWMP (Todd, 2011) in compliance with the Water Code. This includes compliance with the Water Conservation Act of 2009, also known as Senate Bill 7, which provides the regulatory framework for a statewide 20 percent reduction in urban per capita water demand by 2020. The 2010 UWMP included projected increases in water demand of both residential and non-residential land uses located within the City limits; this report discusses these projections and the cumulative water demand increases to date. This Project is inside City limits but not included in the 2010 UWMP. The City requires that any project subject to CEQA and requiring a General Plan Amendment for increased residential, commercial, or industrial intensity complete a Water Supply Assessment (if required under Water Codes Sections 10910 and 10912) or a WSE to analyze potential impacts of any new water use on a case-by-case cumulative basis.

In order to enhance overall water supply reliability, new development—per City policy—is required to be served with surface and recycled water. Consequently, additional Nacimiento Water Project (NWP) water allocation, the treatment plant expansion, and the recycled water infrastructure will be funded by development.

1.3. WSE PURPOSE AND ORGANIZATION

The purpose of this WSE is to document the City's existing and future water supplies for its service area and to compare them to the area's future water demand, including that of the proposed Project. This comparison, conducted for both normal and drought conditions in five-year increments over the next 20 years, is the basis for an assessment of water supply sufficiency in accordance with California Water Code Section 10910 (SB610).

The WSE incorporates current and future water supply and demand information from the City's 2010 UWMP, available City and County documents regarding water supplies (groundwater, Nacimiento supply, recycled water), current water use, and estimated water use of the Project and other approved and proposed projects. The analysis extends to 2035, addresses water demands in five-year increments, and provides information consistent with SB610 WSA requirements.

While fulfilling SB610 information requirements, this WSE is organized to be easily read and understood, as follows:

- Section 1 introduces the Project and provides background.
- Sections 2 and 3 discuss water demand: Section 2 focuses on the current and proposed water demands of the Project that is the subject of this WSE. Section 3 provides the context of the City's current and projected water demands in normal and drought years.
- Section 4 documents the City's existing and future supplies and allocation of those supplies. The City currently relies on groundwater, but future sources include imported Lake Nacimiento water and recycled water.
- Section 5 provides the comparison of water supply and demand (in normal and drought years) that fulfills the intent of SB610, while Section 6 summarizes the report's conclusions.

2. PROJECT WATER DEMAND

This section addresses water demands for the existing properties and presents water demand estimates for the proposed development. The next section, Section 3 *City of Paso Robles Water Demand*, presents the City's current and projected demands.

2.1. CURRENT PROJECT WATER USE

The Project site is currently vacant and used for grazing. There is no City-supplied water to the Project site and it is assumed that existing water use is zero.

2.2. PROPOSED PROJECT WATER DEMAND

The Project components, water use rates and associated water demands are shown in **Table 1**. There are no specific development plans for the lots at this time. However, to estimate potential Project water use at buildout, several development assumptions were made based on maximum land use densities and minimum percent open space for various Airport Zones within the Project area. Once completed, the Project will need an estimated 33.21¹ AFY of City-supplied potable water. This includes seven percent unaccounted-for water (for City-supplied water) as per the UWMP (Todd, 2011), which is typical for water supply systems.

The water use rates are based on the maximum allowed employees per lot for Lots 1-4 and 5-8 and assume that an employee uses 10 gallons of water per day. Lot 4 is designated for crop production with $\frac{1}{4}$ of the area in vineyards (needing 1.5 AFY/acre of irrigation), $\frac{1}{4}$ of the area in irrigated crops (averaging 2.5 AFY/acre of irrigation), and the remaining $\frac{1}{2}$ not irrigated. It was assumed that Lots 9-13 would be wineries with an estimated water demand rate of 0.00009 AF/sf (see footnotes to **Table 1**).

The City requires annexations and General Plan amendments resulting in increased water demand to fund supplemental water supply. The Project applicant will be required to fund the contract for delivery of imported Nacimiento Water Project (NWP) water above the quantity that the City is already committed to acquire. Further discussion of Nacimiento Water supply is provided in Section 4.2.

¹ In this evaluation, water demand values may be shown to the tenth or hundredth place. As a result, numbers may appear to be accurate to four or five digits, which is not the case. Estimated values (e.g., water demand) are probably accurate to one or two significant digits. In the text and tables, digits are retained to minimize rounding errors, preserve correct totals in tables, and to maintain as much accuracy as possible in subsequent computations.

3. CITY OF PASO ROBLES WATER DEMAND

This section summarizes the current and projected water demands for the City of Paso Robles. The sections below describe the factors affecting total water demand, including climate and population, under normal climatic conditions and during droughts.

3.1. CLIMATE

Climate has a significant influence on water demand on a seasonal and annual basis. This influence increases with the portion of water demand for outside uses, including crop and landscape irrigation.

Table 2 summarizes representative climate data for the Paso Robles area, including average monthly and annual rainfall, temperature, and evapotranspiration (ET_o). The area has a Mediterranean climate, with moderate temperatures year-round, dry summers and wetter winters. Most of the rainfall occurs between November and April. **Figure 3** shows annual rainfall for the 1931 to 2014 period with average annual rainfall at 14.01 inches.

Climate change affects global and local climate patterns. Potential climate changes in Paso Robles by the end of this century include:

- Increased temperatures
- Changed precipitation rates
- Increased frequency and severity of storm events
- Increased burn area from wildfires (Rincon, 2013).

Climate change may affect future water supply availability by increasing temperature resulting in more demand for irrigation and greater evaporation of Lake Nacimiento water. Effects on the water system of increased irrigation demand can be minimized through water conservation measures and provision of recycled water. Full subscription is underway for Nacimiento Water Project water, resulting in a diversified water supply portfolio that increases overall City water supply reliability.

3.2. POPULATION

Paso Robles' current and projected population is shown in **Table 3**. The City's population in 2025, based upon the City's 2003 General Plan Amendment 2005-001–Resolution 05-249, is consistent with the City's 2010 UWMP (Todd, 2011) and the General Plan population threshold of 44,000 residents. However, it is recognized that with current growth rates it is likely that the build out population of 44,000 will not be reached by 2025 and may extend past 2040.

3.3. CURRENT WATER USE SECTORS AND WATER DEMAND

Tables 4 and **5** depict past and current water connections and water demand for the Paso Robles service area by water use sectors for the calendar years 2005, 2010, and 2012 to 2014. Since the summer of 2009, in response to drought and summer water production shortfalls,

City-mandated outdoor water use restrictions and other conservation programs have resulted in reduced water use. These restrictions have been successful in reducing peak demand and have enabled the City to maintain adequate reservoir storage levels for emergency and reserve uses. In 2014, the City supplied 6,269 AF of potable water citywide. This is well below prior years and is within the water conservation target threshold identified in Senate Bill 7.

City water use restrictions will likely remain in effect until current State mandated water use reductions are lifted and rainfall returns to normal or above levels and/or when deliveries of additional supply (Nacimiento Water) increase.

3.4. PROJECTED WATER DEMAND

The projected number of water service connections for water use sectors are shown in **Table 4** in five-year intervals between 2015 and 2040. These projections are based on the City's current General Plan and 2010 UWMP and assume a population threshold of 44,000 by 2025. **Table 5** provides projections for customer deliveries for the same time intervals. For City planning purposes, the top portion of **Table 5** presents projected deliveries based on baseline water usage rates prior to potential conservation and recycling savings. **Table 5** does not include the proposed Project demands.

The *Potential Conservation and Recycling* row in **Table 5** represents the potential conservation and recycled water required to comply with the Senate Bill 7 goal of 20 percent reduction of per capita baseline water use by 2020. Baseline per capita water use is 241 gallons per capita per day (gpcd) (Todd, 2011). Target water use in 2020 is required to be 80 percent of baseline gpcd, which equates to 193 gpcd. In 2014, actual per capita water use was 182 gpcd.

These water use projections were based on the 2010 UWMP (Todd, 2011) where the sector-specific water demands projected for 2025 are based on potential use of all land use categories. By 2025, the Paso Robles service area would have a build out water use of 13,400 AFY if historical water use patterns were to prevail. To achieve the State-mandated target of a 20 percent reduction by 2020, water use will need to be reduced to 9,515 AFY, or 193 gpcd.

The timing of future water demand is dependent on customer usage, success in sustained water conservation, approval and construction of prospective projects, market forces, and other factors. **Table 6** lists major projects that are under construction, possess active permits, or have applied for permits. Water use for each project has been estimated in the table and summed at the bottom for a total of 577. Many factors may influence the timing of construction and operation of the noted projects. Nonetheless, addition of the **Table 6** projected water use of 577 AFY to the City's 2014 water use of 6,269 AFY results in 6,846 AFY. This is below the estimated 2015 water use of 8,550 AFY (baseline) and 7,570 AFY (20 percent reduction target), indicating that the City is within the 2010 UWMP water planning horizon for the near future.

4. WATER SUPPLY

The City of Paso Robles has historically relied on groundwater from the Paso Robles Groundwater Basin and on Salinas River water for its municipal water supply. This has been supplemented in recent years with water from Lake Nacimiento;² recycled water is planned for the future. **Table 7** lists the City's current and projected water supply sources. This section describes the water supplies available to the City. A projection of water supply needed to meet demands is shown in five-year increments to 2040 in **Table 8**.

4.1. PASO ROBLES GROUNDWATER BASIN

Figure 1 shows the boundaries of the Paso Robles Groundwater Basin, which encompasses about 790 square miles in San Luis Obispo County and southern Monterey County. The Paso Robles Groundwater Basin (CDWR Basin No. 3-4.06) is the water-bearing portion of the upper Salinas River drainage area. The Salinas River system drains the basin area and surrounding uplands, and flows north along the western edge of the drainage area.

4.1.1. Geology

The major aquifers (or water-bearing units) in the basin include alluvial deposits and the Paso Robles Formation. The alluvial deposits are up to 100 feet in depth and include recent stream-laid sands and gravels along the floodplains of the Salinas River and its tributaries, and older finer-grained terrace deposits along the Salinas River and Estrella River. Wells in alluvium typically produce in excess of 1,000 gallons per minute (gpm) (Fugro, 2002).

The Paso Robles Formation is the most extensive aquifer and consists of sedimentary layers extending from the surface to depths of more than 2,000 feet. It is typically unconsolidated and generally poorly sorted. The water bearing sediments in the basin are 700 to 1,200 feet thick and typically extend to sea level. Paso Robles Formation sediments are relatively thin, often discontinuous sand and gravel layers interbedded with thick layers of silt and clay. Wells generally produce several hundred gpm (Fugro, 2002).

4.1.2. Subareas

The Paso Robles Groundwater Basin is generally interconnected by extensive, thick sedimentary layers. For practical management purposes, this large basin has been informally subdivided into the Atascadero subbasin and seven subareas. The informal division of subareas was based on water quality, source of recharge, groundwater movement, and contours on the base of permeable sediments. The subareas are not hydrologically distinct, and groundwater generally flows between adjacent subareas. The City overlies portions of the Atascadero and Estrella subareas, as shown on **Figure 4**.

² Since the summer of 2013, the City has been using some Lake Nacimiento water to recharge its Salinas River well field in response to drought.

4.1.3. Groundwater Quality

A general measure of groundwater quality is total dissolved solids (TDS). For drinking water purposes, water with a TDS concentration of 500 milligrams per liter (mg/L) or less is recommended, but can be usable up to 1,000 mg/L. In Paso Robles Groundwater Basin wells, TDS concentrations generally range from 300 to 1,000 mg/L (Fugro, 2002 and 2005).

A survey of local groundwater quality was conducted by the United States Geological Survey (USGS) as part of its Groundwater Ambient Monitoring and Assessment (GAMA) Program (USGS, 2007). The USGS sampled eleven randomly-selected wells located along the major river valleys, including four in or near the City. While trace amounts of pesticides, arsenic, and boron were reported, no constituents of concern were detected above regulatory thresholds.

In general, City water quality is good, but has relatively high TDS and hardness. In response to the hardness, many residents use home water softeners. However, use of water softeners results in addition of salts to the City's wastewater. The use of additional Lake Nacimiento water is one way to help address this issue. Nacimiento water is lower in hardness and TDS than groundwater, and obviates the need for water softeners. Reducing or eliminating the use of water softeners will help preserve the quality of local groundwater and advance the use of recycled water for irrigation.

4.1.4. Groundwater Levels and Flow

Groundwater levels in the Paso Robles Groundwater Basin range between 1,500 feet above mean sea level (msl) around the basin margins to below 600 feet msl in the Estrella subarea and along the Salinas River north of the City (Todd, 2007 and GEI, 2011). Groundwater flows generally from the margins toward the center of the basin and to the northwest, where the outlet to the lower Salinas Valley is located. Review of regional maps indicates that groundwater flow beneath the Project site is generally to the northwest (GEI, 2011 and Fugro, 2005).

4.1.5. City Wells

The City has 8 river wells, 12 basin wells, and 1 Nacimiento water recovery well (**Figure 4**). With regard to river wells, the City's Thunderbird well field is located near the Salinas River. The wells yield surface water from the Salinas River. Water levels have remained generally constant, at about 20 to 40 feet below ground surface. The City's Ronconi Wells 1 and 4 are also located near the Salinas River north of the Thunderbird well field. These wells also yield surface water from the Salinas River. Water levels typically are about 15 feet below ground surface.

The 12 City basin wells are dispersed across the City east of the Salinas River. All are screened in the Paso Robles Formation as are the many nearby rural residential and agricultural wells surrounding the City. A groundwater depression is centered in the Estrella subarea, reflecting agricultural, golf course, municipal, rural and other pumping. This pumping depression is characterized by declining groundwater levels, which are also apparent in City wells; in some

cases, groundwater levels have declined more than 100 feet since 1997, with recent annual rates of decline generally between 5 to 9 feet per year. Water level declines are expected to continue into the near future unless overall pumping in the Estrella subarea across water use sectors is reduced or supplemental recharge and/or in lieu water use is achieved.

The Nacimiento recovery well allows water from the Nacimiento Project to be turned into the Salinas River channel upstream of the recovery well, and then recaptured by the well and delivered into the City's water supply system.

Annual pumping totals for basin and river wells between 2005 and 2014 are shown in **Table 9**. Because of the mandatory water use restrictions and successful conservation, water use since 2009 has been reduced. Future pumping projections in five-year increments are shown in **Table 10**. The City does not plan to increase basin pumping from historical highs of around 4,000 AFY to support additional growth. New development will be served with Lake Nacimiento water and recycled water.

4.1.6. Local Wells

The property is currently not using groundwater and does not intend to use local groundwater in the future. In general, the City supplies water to properties to the west of the Project, while groundwater is used for supply to the east. The Wine Country RV Resort to the southeast is supplied City water. Several developments are proposed for surrounding land and include the Jerry Handley property (Destino Paso Robles) and the Ken Mundee property (Paso Vista Resort Project) to the east.

4.1.7. Groundwater Conditions

Local water users have recognized the seriousness of local groundwater declines and have sponsored investigations to understand the groundwater basin and lay the groundwork for improved management. Specifically, a series of recent studies have addressed the water balance of the Paso Robles Basin and its perennial yield. The *Paso Robles Groundwater Basin Study* (Fugro, 2002) included basic data compilation and review, definition of the basin and subareas, aquifer characterization, assessment of water quality conditions, and a water balance study as of 1997. The *Phase II Numerical Model Development* report (Fugro, 2005) involved development of a groundwater flow model of the basin and summarized its development, calibration, and application to specific issues. Objectives included refining the basin's water balance and perennial yield, and simulating impacts to groundwater levels resulting from projected build out conditions in the basin.

The *Paso Robles Groundwater Basin Study* documented groundwater level conditions up to 1997. Subsequently, the City and County sponsored a series of studies to provide updates on groundwater level conditions and the water balance (e.g., Todd, 2007; Todd, 2009; Fugro, 2010; Yates, 2010). The County and basin stakeholders subsequently cooperated in the development of the 2011 Groundwater Management Plan, which presents basin management objectives and actions to fulfill those objectives, foremost of which is stabilization of

groundwater levels. The Groundwater Basin Model and perennial yield estimate were updated with the current perennial yield estimated at 90,215 AFY (Geoscience, 2015).

4.1.8. Groundwater Basin Monitoring and Management

The City recognizes that groundwater level declines are continuing locally, most notably in the Estrella subarea, which provides a portion of the City's groundwater supply as well as supply for farmers, domestic users, and other communities. Accordingly, the City participates actively in groundwater basin monitoring and management planning and activities, in cooperation with San Luis Obispo County and other water users. A Groundwater Management Plan (GWMP) was completed in March 2011 (GEI, 2011).

The City also has taken direct supplemental water actions. Those actions include construction of a water treatment plant enabling direct delivery of treated Nacimiento water to customers, joining in full subscription of the Nacimiento Project thereby securing more entitlement for the City, and embarking on the recycled water program. The City's policy is to support any additional growth with Nacimiento Project water and recycled water.

4.1.9. County Resource Management System and Resource Conservation Study

The San Luis Obispo County Planning and Building Department is responsible for the County Resource Management System, which provides information to the County Board of Supervisors to guide decisions about balancing land development with needed resources (e.g., water, schools, and roads). Under the Resource Management System, County staff collects available information, identifies resource problems, and recommends solutions to 1) expand the resource, 2) conserve the resource, or 3) restrict/ redirect development.

Findings under the County's Resource Management System led to the Paso Robles Groundwater Basin Urgency Ordinance, which was effective August 27, 2013 through August 27, 2015. The ordinance, with some exceptions, applied to unincorporated portions of the Paso Robles Groundwater Basin and prohibited new or expanded irrigated crop production and new development dependent on a well in the Basin. It provided some exemptions, specified some activities that were not subject to the ordinance, and allowed 1:1 offsets.

On October 27, 2015 the County Board of Supervisors adopted the Countywide Water Conservation Program. The amendments became effective November 26, 2015 and include:

- Water waste prevention measures apply to all unincorporated areas where a similar program is not already operated by a water purveyor
- Agricultural best management practices are encouraged in all unincorporated areas
- New buildings and new irrigated agriculture must offset new water use in the Paso Robles Groundwater Basin
- New buildings must offset new water use in the Nipomo Mesa Water Conservation Area

These amendments focused on halting the increase in groundwater pumping throughout the Paso Robles Groundwater Basin and other critical areas in the County; they allow new development and new or altered irrigated agriculture only when demonstrated to fully offset water use.

4.1.10. Sustainable Groundwater Management Act

In September 2014, Governor Brown signed three legislative bills (AB 1739, SB 1168, and SB1319) that together are known as the Sustainable Groundwater Management Act (SGMA). The law provides a framework for sustainable management of groundwater resources by local agencies, defined as a local public agency with water supply, water management, or land use responsibilities within a groundwater basin.

SGMA establishes a process and timeline for local agencies to achieve sustainable groundwater management in basins designated as medium or high priority by the Department of Water Resources (DWR), including:

- Local agencies must form local groundwater sustainability agencies (GSAs) within two years (i.e., 2017);
- GSAs must prepare and adopt groundwater sustainability plans (GSPs) within five to seven years (2020 or 2022 depending on the overdraft status of the basin); and
- Once GSPs are adopted, GSAs must implement them and achieve sustainability within 20 years.

The Paso Robles Groundwater Basin is designated as a high priority basin. It also has been designated by DWR as critically overdrafted, and thus is subject to the accelerated timeline.

SGMA provides GSAs with various tools to achieve sustainability, including specific authorities and procedures. Among other powers, GSAs may:

- Conduct investigations to carry out the requirements of the Act;
- Require registration of wells and measurement of extractions;
- Require annual extraction reports;
- Impose well spacing requirements and limits on extractions from individual groundwater wells; and
- Assess fees to implement local groundwater management plans.

The County, the City, and other organizations in the Paso Robles Groundwater Basin are collaborating to form one or more GSAs for the Paso Robles Groundwater Basin. The timelines outlined above will apply to those efforts.

4.1.11. Water Rights

The City's well supply is subdivided into two sources according to water rights. These are Salinas River water and percolating water of the Paso Robles Groundwater Basin.

- Salinas River – Salinas River water is used pursuant to appropriative surface water rights and permits issued by the State Water Resources Control Board. The City's

Permit number 5956, as amended on November 6, 1981, allows the City to extract up to eight cubic feet per second (3,590 gpm) with a maximum extraction of 4,600 AFY (January 1 to December 31). The Permit designates a moveable point of diversion within a specific reach of the Salinas River.

- Percolated Basin Water – The City operates deep wells that pump from CDWR Basin No. 3-4.06 (Paso Robles Groundwater Basin). The Paso Robles Groundwater Basin has not been adjudicated but it has been designated as critically overdrafted by the State and subject to sustainable management under the Sustainable Groundwater Management Act.

4.1.12. City's Private Well Policy

On January 6, 2016, the City passed and adopted the Private Well Policy ordinance (Ordinance No. 1021 N.S. Relating to Recycled Water Service and Private Wells within the City). The ordinance outlines permit requirements for the development and use of private wells within City boundaries, establishes policies for recycled water use, and extends the City's Water Conservation and Water Shortage Contingency Plan to these private wells.

4.2. LAKE NACIMIENTO WATER

In 1959, San Luis Obispo County Flood Control and Water Conservation District (District) signed an agreement with what is now Monterey County Water Resources Agency entitling the District to no less than 17,500 acre-feet annually from Lake Nacimiento for uses in San Luis Obispo County; of this amount, 1,750 AFY is set aside for lakeside uses. The Nacimiento Water Project (NWP), completed in 2010, consists of approximately 45 miles of pipeline to deliver raw water from Lake Nacimiento to communities in San Luis Obispo County.

Participants in the NWP are the City of Paso Robles, Templeton Community Services District (TCSD), Atascadero Mutual Water Company (AMWC), the City of San Luis Obispo, and County Service Area 10A in Cayucos, each of which hold a contract with the District to receive annual deliveries from the NWP. Currently, the combined delivery entitlements to these participants total 9,655 AFY as listed in the table below.

The NWP has capacity to deliver the full 17,500 AFY entitlement (less the lakeside set-aside) even though the project participants listed above did not initially seek entitlement to that full amount. The difference is referred to as "Reserve Water" (6,095 AFY). In October 2015, the City and the other participants began a process to acquire their respective proportionate shares of Reserve Water. This step is referred to as "fully subscribing" the NWP. The proposed increased entitlements resulting from fully subscription are as follows:

| Participant | Current Delivery Entitlement, AFY | Proposed Additional Entitlement, AFY | Totals at Full Subscription, AFY |
|---------------------------|--|---|---|
| City of Paso Robles | 4,000 | 2,488 | 6,488 |
| City of San Luis Obispo | 3,380 | 2,102 | 5,482 |
| Atascadero MWC | 2,000 | 1,244 | 3,244 |
| Templeton CSD | 250 | 156 | 406 |
| CSA 10A Cayucos | 25 | 15 | 40 |
| Bella Vista MHP (Cayucos) | 0 | 10 | 10 |
| Santa Margarita Ranch MWC | 0 | 80 | 80 |
| Subtotal | 9,655 | 6,095 | 15,750 |
| Reserve Capacity | 6,095 | - | - |
| Lakeside Setaside | 1,750 | - | 1,750 |
| Total | 17,500 | - | 17,500 |

At full subscription, the City's entitlement to Lake Nacimiento water will increase to 6,488 AFY.

Lake water requires treatment before introduction into the City's drinking water system; a 2.4 million gallons per day treatment plant came into operation in late 2015. Capital planning calls for expanding that treatment capacity by an additional 4 million gallons per day in the coming years, depending upon demand needs.

Use of Lake Nacimiento water confers water quality benefits to the City. Lake Nacimiento water has lower hardness as compared to groundwater, with TDS concentrations in the range of 150 to 300 mg/L, while TDS concentrations in City wells average over 300 mg/L.

In addition, Lake Nacimiento supply is independent of local groundwater supplies, resulting in a diversified water supply portfolio that increases overall City water supply reliability. Use of Lake Nacimiento water by the City and others in the North County supplements supply such that less water is pumped from the groundwater basin. The Paso Robles Groundwater Basin Management Plan (GEI, 2011) has identified use of Nacimiento water in the Estrella and Atascadero subareas as a key objective to stabilizing groundwater levels. Importation of Nacimiento water may also provide some return flows from irrigation landscaping that would otherwise not occur. Now that the City's water treatment plant is operational, the City will ramp up its initial use of Nacimiento water to 1,120 AFY (**Table 8**).

4.3. RECYCLED WATER

The City's wastewater treatment plant (WWTP) uses a trickling filter treatment process to treat about 3 mgd. Approximately 3,300 AFY of treated effluent is discharged to a series of ponds before entering the Salinas River channel, recycling it to the groundwater basin.

Recognizing wastewater as an important resource, the City is taking steps to improve its quality. These steps include upgrading of the wastewater treatment plant, use of Nacimientto water, and implementation of programs to reduce salt loading (e.g., from water softeners and industrial uses.) The City also is planning a recycled water program including recycled water irrigation, possible groundwater recharge, and discharge to the river. The Recycled Water Master Plan (AECOM, 2014) identified potential recycled water customers, estimated recycled water quality and blending needs, identified recycled water distribution system options, and developed preliminary cost options. The City recently approved a contract to prepare the final plans and specifications for a wastewater tertiary treatment plant allowing treated recycled water to be used on golf courses and potentially vineyards, lessening the impact on the groundwater basin. The next steps include developing a financial plan and meeting with potential larger customers to discuss delivery and water quality.

4.4. WATER SUPPLY IN NORMAL AND DROUGHT PERIODS

Table 8 summarizes current and planned water supply for the City of Paso Robles. As shown in the top portion of the table, potable water supply is projected to come from three sources: groundwater through the basin wells, Salinas River water through the river wells, and Lake Nacimientto water. The table does not reflect the total groundwater supply (basin wells) available to the City, but the water needed to supply projected demands and account for balancing of available supplies and ensuring long-term water supply reliability for the City. Recycled water is considered a demand reduction measure rather than a supply source in the table. The projected build out demand is 13,400 AFY if historical usage patterns persist.

This demand may be reduced by potential water conservation efforts as shown in **Table 8**. Future recycled water is grouped with water conservation as a means of reducing water use on a per capita basis to comply with Senate Bill 7, which requires total daily per capita water use to be reduced 10 percent by 2015 and 20 percent by 2020 as compared to historical high usage. Note that 2014 actual usage complies with Senate Bill 7 targets.

Table 8 shows total potential conservation savings from conservation programs (BMP=best management practices and DMM=demand management measures). These are discussed in the 2010 UWMP (Todd, 2011). Conservation savings are estimated to increase from 364 AFY in 2015 to 1,617 AFY in 2025.

Potential conservation savings from price elasticity impacts of planned water rate increases are also shown on **Table 8**, reflecting the additional conservation that may occur due to increased consumer costs for water. By 2025, the City's UWMP (Todd, 2011) had anticipated that 650 AFY of recycled water will be used to offset potable supply. More recently, the Recycled Water Master Plan (AECOM, 2014) estimated that recycled water could provide a potential potable water use offset of 475 AFY and an additional potential use of 1,048 AFY within City limits. The 475 AFY recycled water use value is used in the tables in this WSE. Additional recycled water (3,970 AFY) would also be available for uses outside City boundaries. These additional recycled water deliveries could include irrigation of golf courses, medians, vineyards, and other agricultural uses, offsetting groundwater pumping.

If these conservation and recycled water savings are achieved and full utilization of Nacimiento water is possible, basin well pumping will most likely be reduced. In recent years, basin wells have provided as much as 4,103 AF (in 2007, see **Table 9**). **Table 10** shows projected groundwater production without additional conservation program savings and recycled water use. **Table 11** shows future water supply projects. Starting in late 2015, Nacimiento water use started to ramp up with the treatment plant's capacity at 2,400 to 2,600 AFY. Between 2025 and 2035, the plant will be upgraded to up to 6,488 AFY; timing will depend on demands.

Year-round, the amount of groundwater available in times of drought is considered to be the same as a normal year (and within historical pumping volumes). However, there is potential for peak summer water production shortfalls. The availability of Lake Nacimiento water will lessen future summer peaking problems and provide resilience to droughts. Lake Nacimiento water is a reliable and stable source of water as San Luis Obispo County has a contractual first priority to 17,500 AFY of the reservoir yield which is over 200,000 AFY. Modeling of Nacimiento Lake levels and Nacimiento Water Project deliveries indicates that NWP deliveries are not a significant contributor to lake level changes as compared to historical records (1958-2001) and, that even during historical drought periods, the total annual San Luis Obispo County entitlement could have been delivered (Boyle, 2002 and Paso Robles, 2014). In addition, future use of recycled water—a nearly constant source—will also increase supply reliability. Drought water supplies of future water supply projects are summarized in **Table 11**.

The bottom lines of **Table 8** and **Table 11** show the Wisteria Project's addition to the City's supplies. Additional Nacimiento water is required to be imported to supply the Project, increasing City supplies to 13,433 AFY by 2025.

5. COMPARISON OF SUPPLY AND DEMAND

Table 12 compares water supply to water demand in five year increments between 2015 and 2040 for a normal year for the City with and without the Wisteria Project. The demands listed in **Tables 12** through **14** can be reduced with the additional conservation program and recycled water use savings listed in the middle portion of **Table 8**.

As specified in the 2010 UWMP (Todd, 2011), future demand totals are to incorporate the projected water reduction targets of 10 percent per capita reduction by 2015 and 20 percent reduction by 2020. The City is meeting its 2015 reduction goal but mandatory conservation is in effect. However, it is difficult to guarantee that these target reductions can be met considering uncertainties related to future customer water uses, program funding limitations, and competing fiscal responsibilities that cities are facing today.

The demands projected in **Tables 12** through **14** can be reduced with the potential conservation program and recycled water use savings listed in the middle portion of **Table 8** and any future potential savings will provide a necessary supply cushion to handle uncertainties related to both supplies and future demands.

Table 13 presents the same estimates for a single dry year. The supply will be the same as that available during normal years (**Table 8**); groundwater can be pumped at similar rates on an annual basis during dry years and Lake Nacimiento water and recycled water will still be available. Any future potential conservation and recycled water use savings will provide a necessary supply cushion.

A table was generated to compare annual supply and demand during multiple-dry year periods for five year periods between 2015 and 2040. This information is presented in **Table 14**. In this table, supply and demand values were kept the same as those for normal years (**Tables 8** and **12**) and for a single dry year (**Table 13**). Any future potential conservation and recycled water use savings will provide a necessary supply cushion. The City can also initiate various levels of its Water Shortage Contingency Plan to reduce water demands, as discussed in the 2010 UWMP (Todd, 2011).

6. CONCLUSIONS

The findings of this WSE are summarized below.

- The proposed Wisteria Project is on 212 acres north of Highway 46 East and east of Golden Hills Road.
- The Project site is currently vacant and used for grazing.
- The Project is planned to consist of developing 69.1 acres by subdividing 3 existing parcels into 13 lots and one remainder parcel (plus about 8.2 acres of right-of-way land). The lots will range in size from about 2.2 to 13.9 acres and the remainder parcel will be 134.7 acres.
- The City will provide potable water supply and wastewater collection to the Project. Recycled water may be available in the future but, because of the uncertainty of a potential customer, its use will not be included in this analysis.
- A General Plan Amendment is needed to re-designate land use categories and rezone the property to Commercial, Planned Industrial, and Business Park. The Project will need to conform to the City's Airport Land Use Plan (ALUP), which sets limits on maximum land use densities and minimum percent open space for various Airport Zones within the Project area.
- There are no specific development plans for the lots at this time. However, to estimate potential Project water use at buildout, several develop assumptions were made based on maximum land use densities and minimum percent open space for various Airport Zones within the Project area.
- At buildout, the Project will need about 33 AFY of City-supplied potable water.
- Use of imported Nacimiento Project water will have a beneficial impact by supplying a higher quality of water.

In conclusion, the existing and planned water resources available are adequate to provide a reliable long-term water supply for the Project under normal and drought conditions provided that the additional Nacimiento Project water is secured.

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TABLES

Table 1
Projected Water Demands
Paso Robles Wisteria Project

| Proposed Land Designation and Use | Total Area (acres) | ALUP Zone | Maximum Land Use Density Allowed ¹ (persons/acre) | Density Allowed on Lot (persons/lot) | Proposed Persons per Lot | Potential Development Based on ALUP Density (feet ²) | Estimated Water Use Rate | Estimated Water Use ² (Acre-feet/year) |
|--|--------------------|-----------|--|--------------------------------------|--------------------------|--|--------------------------|---|
| Lot 1 | | | | | | | | |
| C3: Commercial Light Industry | 2.3 | 4 | 40 | 92 | 92 | 36,700 | a | 0.83 |
| Lot 2 | | | | | | | | |
| C3: Commercial Light Industry | 2.2 | 4 | 40 | 88 | 88 | 35,000 | a | 0.80 |
| Lot 3 | | | | | | | | |
| PM: Planned Industrial | 4.7 | 4 | 40 | 188 | 216 | 86,200 | a | 1.82 |
| Lot 4 | | | | | | | | |
| RA PD: Crop Production (irrigated or dry farming, orchards, vineyards) | 8.9 | 4 | 40 | 356 | 5.3 | 230,868 | b | 5.30 |
| Lot 5 | | | | | | | | |
| PM: Planned Industrial | 3.4 | 4 | 40 | 136 | 136 | 40,700 | a | 1.18 |
| Lot 6 | | | | | | | | |
| PM: Planned Industrial | 3.4 | 4 | 40 | 136 | 136 | 40,700 | a | 1.18 |
| Lot 7 | | | | | | | | |
| PM: Planned Industrial | 13.9 | 2 | 20 | 278 | 278 | 83,500 | a | 2.31 |
| Lot 8 | | | | | | | | |
| PM: Planned Industrial | 5.4 | 2 | 20 | 108 | 108 | 32,500 | a | 0.96 |
| Lot 9 | | | | | | | | |
| PM: Wineries | 3.4 | 2 | 20 | 68 | 68 | 13,500 | c | 1.22 |
| Lot 10 | | | | | | | | |
| PM: Wineries | 4.5 | 2 | 20 | 90 | 90 | 18,000 | c | 1.62 |
| Lot 11 | | | | | | | | |
| PM: Wineries | 8.8 | 4 | 40 | 352 | 352 | 70,300 | c | 6.33 |
| Lot 12 | | | | | | | | |
| PM: Wineries | 4.2 | 4 | 40 | 168 | 168 | 33,500 | c | 3.02 |
| Lot 13 | | | | | | | | |
| PM: Wineries | 4.0 | 4 | 40 | 160 | 160 | 48,000 | c | 4.32 |
| Subtotal | 69.10 | - | - | - | 1,897 | 769,468 | - | 30.89 |
| Unaccounted for City Water³ | - | - | - | - | - | - | - | 2.32 |
| Totals | | | | | | | | 33.21 |

Areas from City's 4/18/16 email; potential development data from Wisteria Lane-GPA and VTTM Project Land Use Assumptions table (Kirk, 2015).

1. Land Use Densities as per ALUP (Amended 2007)

2. Water Use Rates

a. 10 gal/emp/day*260/365, plus 0.1 AF landscaping (From Paso Vista WSE, Todd, 2015)

b. Assume 1/4 of the area is irrigated vineyards (at 1.5 AFY/acre (AECOM, 2014)), 1/4 of the area is irrigated crops (at 2.5 AFY/acre which is average of vineyard irrigation (1.5 AFY/acre) and golf course irrigation (3.5 AFY/acre from Geoscience, 2014), and remaining 1/2 is not irrigated.

c. 0.00009 AF/sf (applicant's water use estimate for San Antonio winery 11.3 AFY/126,000 sf (Todd, 2015))

Preliminary water use estimates may be refined during the Project planning process.

3. Assumes that unaccounted-for water is 7% of total water use: (e.g., 33.21 AFY x 0.07 = 2.32 losses). Unaccounted-for water typically includes unmetered use (e.g. main flushing or firefighting), meter error, and leaks.

**Table 2
Climate Data**

| | Average Rainfall¹ (inches) | Average ETo² (inches) | Average Temperature³ (°F) |
|--|--|---|---|
| January | 3.18 | 1.73 | 46.78 |
| February | 2.89 | 2.23 | 49.98 |
| March | 2.36 | 3.68 | 52.93 |
| April | 0.94 | 4.74 | 56.53 |
| May | 0.32 | 6.15 | 61.68 |
| June | 0.05 | 6.56 | 67.34 |
| July | 0.04 | 6.63 | 71.45 |
| August | 0.05 | 6.39 | 71.20 |
| September | 0.16 | 4.98 | 68.04 |
| October | 0.58 | 3.48 | 61.12 |
| November | 1.24 | 2.01 | 52.59 |
| December | 2.45 | 1.48 | 46.75 |
| Average Calendar Year Total | 14.01 | 50.06 | - |
| Monthly Average | 1.17 | 4.17 | 58.87 |

1. Precipitation data from Paso Robles Station 046730 (Jan 1894-Aug 2015) (WRCC, 2015). Note that Average Calendar Year Total is not the sum of numbers above but rather historical (1894-2014) annual average.

2. ETo=Average Evapotranspiration data from CIMIS Station 163 Atascadero (CIMIS, 2015).

3. Temperature data from Paso Robles Station 046730 (Jan 1894-Aug 2015) (WRCC, 2015).

**Table 3
Population Projections**

| | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Service Area Population¹ | 30,072 | 30,770 | 37,385 | 44,000 | 44,000 | 44,000 | 44,000 |

Population estimates from 2010 UWMP (Todd, 2011). Assumes linear growth between 2015 and 2025. City population in 2025 consistent with General Plan population planning threshold of 44,000 residents as per City's 2003 General Plan Amendment 2005-001 (City Council Resolution 05-249). The City is in the process of reviewing future population growth projections and it is likely that the build out population of 44,000 will not be reached before 2040.

1. Service area population is the population served by the distribution system and is approximately the same as the City population.

Table 4
Past, Current and Projected Water Connections as per 2010 UWMP

| Water Use Sectors | Past | | | | Current | Projected | | | |
|---------------------------------------|-----------------------------|---------------|--|--|--|---------------|---------------|---------------|---------------|
| | 2005 | 2010 | 2012 | 2013 | 2014 | 2015 | 2020 | 2025 | 2030-2040 |
| Single Family | 8,273 | 8,661 | 8,781 | 8,995 | 8,785 | 8,882 | 10,653 | 12,425 | 12,425 |
| Multi-family | 386 | 401 | 408 | 426 | 406 | 502 | 600 | 696 | 696 |
| Commercial | 682 | 676 | 776 | 799 | 824 | 703 | 1,383 | 2,063 | 2,063 |
| Industrial | 64 | 71 | 72 | 75 | 74 | 74 | 81 | 89 | 89 |
| Institutional/ Governmental | Included in Other sector | 76 | Included in Commercial & Other sectors | Included in Commercial & Other sectors | Included in Commercial & Other sectors | 76 | 76 | 76 | 76 |
| Parks, Landscape Irrigation, Other | 331 | 391 | 404 | 442 | 537 | 392 | 393 | 393 | 393 |
| Total Connections | 9,736 | 10,276 | 10,441 | 10,737 | 10,626 | 10,629 | 13,186 | 15,742 | 15,742 |

Data from 2010 UWMP (Todd, 2011) and 2012 to 2014 DWR Public Water System Statistics provided by City of Paso Robles.
Note that the City is in the process of reviewing future population growth predictions.

Table 5
Past, Current and Projected Water Demand as per 2010 UWMP (AFY)

| Water Use Sectors | Past | | | | Current | Projected | | | |
|---|-----------------------------|-------------------|--|--|--|--------------|---------------|---------------|---------------|
| | 2005 | 2010 ¹ | 2012 ¹ | 2013 ¹ | 2014 ¹ | 2015 | 2020 | 2025 | 2030-2040 |
| Single Family | 3,865 | 3,435 | 3,537 | 3,635 | 3,158 | 4,441 | 5,326 | 6,180 | 6,180 |
| Multi-family | 794 | 573 | 658 | 708 | 632 | 847 | 1,020 | 1,195 | 1,195 |
| Commercial | 1,197 | 656 | 795 | 840 | 799 | 1,234 | 2,427 | 3,620 | 3,620 |
| Industrial | 69 | 154 | 179 | 186 | 209 | 161 | 176 | 194 | 194 |
| Institutional/ Governmental | Included in Other sector | 91 | Included in Commercial & Other sectors | Included in Commercial & Other sectors | Included in Commercial & Other sectors | 91 | 91 | 91 | 91 |
| Parks, Landscape Irrigation, Other ² | 1,238 | 840 | 984 | 1,138 | 1,031 | 1,176 | 1,180 | 1,180 | 1,180 |
| Total Deliveries (no further conservation) | 7,163 | 5,749 | 6,153 | 6,507 | 5,829 | 7,950 | 10,220 | 12,460 | 12,460 |
| Unaccounted-for Water | 250 | 577 | 541 | 493 | 440 | 600 | 770 | 940 | 940 |
| Potential Conservation and Recycling | - | - | - | - | - | 980 | 2,865 | 3,885 | 3,885 |
| Total Demands³ | 7,413 | 6,326 | 6,694 | 7,000 | 6,269 | 7,570 | 8,125 | 9,515 | 9,515 |

Data from 2010 UWMP (Todd, 2011) and 2012 to 2014 DWR Public Water System Statistics provided by City of Paso Robles.

1. Water use was reduced by approximately 20 percent due to City-wide mandatory water use restrictions.
2. Other category on DWR Public Water System Statistic forms includes hydrant meters. In 2005 and 2010, "Landscape Irrigation" category included some accounts that provided water to commercial/industrial and Institutional/Govt water use.
3. Total Demands to Comply with Senate Bill 7 20% Demand Reduction by 2020. SB-7 target water use calculated to be 193 gpcd [2010 UWMP (Todd, 2011)]

Note that the City is in the process of reviewing future population growth predictions.

Table 6
Major Planned Residential and Commercial/Industrial Projects
City of Paso Robles

| Project / Property | Number of Units or Area | Estimated Water Demand (AFY) | Notes |
|--|--|------------------------------|--|
| Single Family | | | |
| 59 single family - Approved | 59 | 23.6 | 0.40 AFY/unit. Various locations |
| 271 single family - Applied | 271 | 108.4 | 0.40 AFY/unit (2012: 3,537 AF/8,781 conn.=0.4 AF/conn.) River Oaks II |
| 72 single family - Applied | 72 | 28.8 | 0.40 AFY/unit. Experimental Station Rd |
| Multifamily | | | |
| 79 multifamily - Approved | 79 | 22.9 | 0.29 AFY/unit. Various locations |
| 23 townhouses - Approved | 23 | 9.2 | 0.40 AFY/unit. Arbor Ridge, Oak Hill Rd |
| 23 multifamily - Applied | 23 | 6.7 | 0.29 AFY/unit. Various locations |
| Commercial/Industrial | | | |
| Building Permit Approved | | | |
| Office Bldg. | 12,835 sf | 0.45 | 1 emp/288 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping. 810 4th Street |
| Commercial Shell Bldgs. | 18,516 sf | 0.44 | 1 emp/439 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping. 5151 Jardine Rd |
| Warehouse/Office | 26,602 sf | 0.58 | 1 emp/439 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping. 3115 Propeller Dr |
| Commercial Shell | 3,200 sf | 0.19 | 1 emp/288 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping. 3328 Spring St |
| Commercial Shell | 10,000 sf | 0.38 | 1 emp/288 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping. 3348 Spring St |
| Athletic Club Addition | 14,597 sf | 1.02 | 0.00007 AF/sf from MPWMD (date unknown). 2975 Union Rd |
| Building Permit Applied | | | |
| Brewery expansion | 25,800 sf | 0.57 | 1 emp/439 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping |
| Service Station/minimart | 5,000 sf | 0.88 | Based on 12 months of data for Chevron on Riverside |
| La Quinta Inn expansion | 37 rooms, 15,700 sf | 7.4 | 0.2 AF/room. Currently under construction |
| Commercial Center | 20,500 sf | 0.67 | 1 emp/288 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping |
| Office Storage | 4,982 sf | 0.05 | 0.00001 AF/sf from MPWMD (date unknown) |
| New Scouts Meeting Facility | 2,732 sf | 1.45 | 0.00053 AF/sf from MPWMD (date unknown) |
| Pine Street Promenade Hotel | 121 rooms, 200,000 sf | 26.20 | 0.2 AF/room |
| PR Oak Tree Inn Addition | 66 rooms | 13.2 | 0.2 AF/room |
| Manufacturing Bldg. | 15,600 sf | 0.38 | 1 emp/439 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping. |
| Self Storage Bldg. | 66,490 sf | 0.66 | 0.00001 AF/sf from MPWMD (date unknown) |
| San Antonio Winery | 85,951 sf | 1.66 | 1 emp/439 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping |
| Zoning Permit Approved | | | |
| RV Park | 322 spaces | 41.9 | 0.13 AF/space based on Wine Country RV Resort |
| Equestrian Show Facility | 67 acres | 2.1 | Staff estimate of annual potable uses. 28.4 AF of self-supplied irrigation |
| Wine Storage Bldg | 66,000 sf | 0.75 | 1 emp/814 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping |
| Office on 4th St | 13,000 sf | 0.46 | 1 emp/288 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping |
| Planning Permit Applied | | | |
| Resort, conference center, gardens, golf, wine tasting | 280 rooms, 439,000 sf | 155.9 | La Entrada/Discovery Gardens; 155.9 AFY of City-supplied water plus 90.9 AFY of private well water |
| Hotel | 127 rooms 99,800 sf | 13.6 | Developer's estimate (about 0.11 AF/room) |
| Auto Parts Store | 7,800 sf | 0.24 | 1 emp/439 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping |
| Residential Care Facility | 14 rooms, 10,100 sf | 2.80 | 0.2 AF/ bed |
| Marriott Residence Hotel | 128 rooms | 25.6 | 0.2 AF/room, S Vine St |
| Chrysler/Jeep Dealership | 29,800 sf | 2.09 | assume 0.00007 AF/sf |
| Used Car Dealership | 2,100 sf garage | 1.47 | assume 0.00007 AF/sf |
| Brewery expansion | 109,000 sf | 2.18 | 1 emp/439 sf, 10 gal/emp/day*260/365, plus 0.2 AF landscaping |
| San Antonio Mixed Use | 12,000 sf | 0.43 | 1 emp/288 sf, 10 gal/emp/day*260/365, plus 0.1 AF landscaping |
| Erskine/Wisteria Industrial Park | 620,000 sf Com + Ind | 11.7 | Areas from preliminary planning documents. 1 emp/439 sf, 10 gal/emp/day*260/365, plus 0.5 AF landscaping |
| Assisted Living | 100 rooms | 20.0 | 0.2 AF/ bed |
| San Antonio Winery Mixed Use | 126,000 sf | 11.3 | Provided by applicant |
| Alder Creek Apartments | 16 Units | 4.64 | 0.29 AFY/unit |
| Cabernet Links & RV Resort | 18 hole golf course, 370 RV spaces, restaurant, banquet room, pool, tennis courts, proshop | unknown water use | 18 hole existing golf course on 5151 Jardine Rd. |
| Marriot Residence Inn | 124 rooms | 24.8 | 0.2 AF/room. Union Road |
| PR 15-0058 | 4 lots Planned Development, 4 Units | 1.60 | 0.40 AFY/unit |
| PR 15-0081 | 2 Lots | 0.80 | 0.40 AFY/unit |
| Subtotal | | 536.5 | - |
| Unaccounted-for Water | | 40.4 | Assumes that unaccounted-for water is 7% of total water use. |
| Total Potential Additional Demand | | 576.9 | |

Project list update from City staff emails October 16 and 19, 2015.

Water demand values provided by City staff or from similar water use documents. 260 work days per year applied to employee gallons/day demand factors.

**Table 7
Water Supply Sources**

| Supply | AFY | Right | Contract | Ever Used |
|---|--------------------------------------|----------------------------|----------|-----------|
| Basin Wells ¹ | No Limit | - | - | Yes |
| River Wells ² | 4,600 | Appropriative Water Rights | - | Yes |
| Nacimiento Water ³ | 4,000/5,400/ 6,488 (potential) | - | Yes | Yes |
| Recycled Water ⁴ | 5,493 | - | - | No |
| Proposed Additional Nacimiento Water for Wisteria Project | 33.2 | - | - | No |

1. While there is currently no basin pumping limit, the City is committed to restricting their pumping to below historical levels of 4,000 AFY to support additional growth. New development will be served with Nacimiento water and recycled water.

2. Maximum permitted rate of 8 cfs with an annual limit of 4,600 AFY. The City is in the process of finalizing this license and requested a maximum of that historically pumped (4,558 AFY). For consistency with 2010 UWMP, the 4,600 AFY value will be used in planning tables in this WSE.

3. Delivered, potable Nacimiento Water will be less because of operational downtimes for cleaning, repairs, etc. The treatment plant has an operational capacity of 2.4 mgd [2.4×10^6 gal/day x 365 day/yr x AF/325,851 gallons = 2,688 AFY]. The treatment plant will be upgraded to up to 6,488 AFY between 2025 and 2035, depending upon demand needs.

4. The Recycled Water Master Plan Update (AECOM, 2014) estimated potential potable use offset at 475 AFY and additional potential uses within City at 1,048 AFY (see Table 3-7). Additional recycled water (3,970 AFY) would be available for uses outside of City boundaries with $475 + 1,048 + 3,970 = 5,493$ AFY. The 2010 UWMP had an estimated value of 650 AFY for potable offset. The 650 AFY estimate has been updated to 475 AFY in this WSE.

Table 8
Water Supplies Needed to Meet Demands (AFY)

| Water Supply Sources | Past | Current | 2010 UWMP Projected | | | |
|---|----------------|--------------|---------------------|---------------|---------------|---------------|
| | 2010 | 2014 | 2015 | 2020 | 2025 | 2030 to 2040 |
| Basin Wells | 2,338 | 3,497 | 2,980 | 4,000 | 3,400 | 3,400 |
| River Wells | 3,988 | 2,772 | 4,450 | 4,600 | 4,600 | 4,600 |
| Nacimiento Water ¹ | 0 | 0 | 1,120 | 2,390 | 5,400 | 5,400 |
| Supply/Demand Without Future Conservation | 6,326 | 6,269 | 8,550 | 10,990 | 13,400 | 13,400 |
| Potential Conservation and Recycled Water Savings | | | | | | |
| BMP/DMM Conservation ² | Not Applicable | | 364 | 1,038 | 1,617 | 1,617 |
| Price Elasticity of Water Rates Conservation | | | 616 | 1,827 | 1,793 | 1,793 |
| Recycled Water (Phase 1 Direct Use) | | | 0 | 0 | 475 | 475 |
| SB-7 Target Water Demands to Comply with 20% Demand Reductions by 2020³ | Not Applicable | | 7,570 | 8,125 | 9,515 | 9,515 |
| Wisteria Project Demands Outside of 2010 UWMP (excluding recycled water use) | | | | | | |
| Additional Nacimiento Water for Wisteria Project⁴ | | | | 33.2 | 33.2 | 33.2 |
| Supply/Demand Without Future Conservation | | | | 11,023 | 13,433 | 13,433 |

Data from 2010 UWMP (Todd, 2011) and 2012 to 2014 Groundwater Pumping datasheet (Paso Robles, 2015).

1. The treatment plant has an operational capacity of 2.4 mgd [2.4×10^6 gal/day x 365 day/yr x AF/325,851 gallons = 2,688 AFY]. Delivered, potable water will be less because of operational downtimes for cleaning, repairs, etc. The treatment plant will initially be operated five months out of the year (high demand summer months) [$2,688 \text{ AFY} \times 5/12 = 1,120 \text{ AFY}$]. It will be upgraded to up to 6,488 AFY sometime between 2025 and 2035, depending upon demand needs. Since the summer of 2013, the City has been using some Lake Nacimiento water to recharge its Salinas River well field in response to drought. Nacimiento water accounted for 87 AFY in 2015, as the City's water treatment plant was not fully operational.

2. BMP=Best Management Practices and DMM=Demand Management Measures

3. Senate Bill 7 target water use calculated to be 193 gpcd in 2020 [2010 UWMP (Todd, 2011)]. At a 44,000 build out population target water demand = 9,515 AFY.

4. The Wisteria Project is proposed to be build in two phases with build out estimated to occur by 2020. For simplicity, assumed build out water use by 2020.

**Table 9
Groundwater and Surface Water - Historical Volume Produced (AFY)**

| | 2005 | 2006 | 2007 | 2008 | 2009 ² | 2010 ² | 2011 ² | 2012 ² | 2013 ² | 2014 ² |
|--|--------------|--------------|--------------|--------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Paso Robles Groundwater Basin | 2,856 | 3,366 | 4,103 | 3,819 | 2,794 | 2,338 | 2,327 | 2,880 | 3,257 | 3,497 |
| Salinas River | 4,558 | 4,065 | 4,023 | 4,072 | 3,868 | 3,988 | 4,069 | 3,814 | 3,743 | 2,772 |
| Total | 7,414 | 7,431 | 8,126 | 7,891 | 6,662 | 6,326 | 6,396 | 6,694 | 7,000 | 6,269 |
| % of Total Groundwater Supply¹ | 8.2% | 8.2% | 9.0% | 8.7% | 7.4% | 7.0% | 7.1% | 7.4% | 7.8% | 6.9% |

1. Total Supply is defined as the updated perennial yield of the Paso Robles Basin (90,215 AFY) based on the Paso Robles Groundwater Basin Model Update (Geoscience, 2015). The perennial yield value does not differentiate Salinas River from basin groundwater.

2. Water use since 2009 is reduced because of City-wide mandatory water use restrictions.

**Table 10
Groundwater and Surface Water - Future Production Estimates (AFY)**

| | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| Paso Robles Groundwater Basin | 2,980 | 4,000 | 3,400 | 3,400 | 3,400 | 3,400 |
| Salinas River | 4,450 | 4,600 | 4,600 | 4,600 | 4,600 | 4,600 |
| Total | 7,430 | 8,600 | 8,000 | 8,000 | 8,000 | 8,000 |
| % of Total Groundwater Supply¹ | 8.2% | 9.5% | 8.9% | 8.9% | 8.9% | 8.9% |

1. Total Supply is defined as the updated perennial yield of the Paso Robles Basin (90,215 AFY) based on the Paso Robles Groundwater Basin Model Update (Geoscience, 2015). The perennial yield value does not differentiate Salinas River from basin groundwater.

See Table 8 for more detail on other water sources. Projected groundwater pumping may be less since values above do not include additional conservation program savings or recycled water use (see Table 8).

**Table 11
Future Water Supply Projects**

| Project Name | Projected Completion Date | Normal-Year (AF) | Single-Dry Year (AF) | First Multiple-Dry Year (AF) | Second Multiple-Dry Year (AF) | Third Multiple-Dry Year (AF) |
|---|----------------------------------|-------------------------|-----------------------------|-------------------------------------|--------------------------------------|-------------------------------------|
| Nacimiento Water¹ | 2015 | 2,400 | 2,400 | 2,400 | 2,400 | 2,400 |
| Future Nacimiento Water for 2010 General Plan Buildout^{1,2} | 2025-2035 | 3,000 | 3,000 | 3,000 | 3,000 | 3,000 |
| Recycled³ | 2025 | 475 | 475 | 475 | 475 | 475 |
| Proposed Additional Nacimiento Water for Wisteria Project | 2015-2022 | 30.9 | 30.9 | 30.9 | 30.9 | 30.9 |

1. City has committed to purchase 4,000 AFY with an additional potential purchase of 2,488 AFY. Initial plant operational capacity of 2.4 mgd (2,688 AFY). Delivered, potable water will be less because of operational downtimes for cleaning, repairs, etc. (0.9*2,688=2,400 AFY).

2. Lake Nacimiento water is a reliable and stable source of water as San Luis Obispo County has a contractual first priority to 17,500 AFY of the reservoir yield which is over 200,000 AFY. Modeling of Nacimiento Lake levels and Nacimiento Water Project (NWP) deliveries indicates that NWP deliveries are not a significant contributor to lake level changes as compared to historical records and, that even during drought periods, the total annual San Luis Obispo County entitlement could have been delivered (Boyle, 2002) and Paso Robles (2014).

3. The Recycled Water Master Plan Update (AECOM, 2014) estimated potential potable use offset at 475 AFY and additional potential uses within City at 1,048 AFY (see Table 3-7). Additional recycled water (3,970 AFY) would be available for uses outside of City boundaries. The 2010 UWMP had an estimated value of 650 AFY for potable offset. The 650 AFY estimate has been updated to 475 AFY in this WSE. Recycled water will be a nearly constant source. Refinements of recycled water options, use estimates, and customers is ongoing.

Table 12
Supply and Demand Comparison - Normal Year (AFY)

| | 2015 | 2020 | 2025 | 2030-2040 |
|---|-------|--------|--------|-----------|
| Without Wisteria Project | | | | |
| Supply Totals | 8,550 | 10,990 | 13,400 | 13,400 |
| Demand Totals (without potential conservation) | 8,550 | 10,990 | 13,400 | 13,400 |
| Difference (Supply-Demand) | 0 | 0 | 0 | 0 |
| Difference as % of Supply | 0% | 0% | 0% | 0% |
| Difference as % of Demand | 0% | 0% | 0% | 0% |
| With Wisteria Project | | | | |
| Supply Totals | 8,550 | 11,023 | 13,433 | 13,433 |
| Demand Totals (without potential conservation) | 8,550 | 11,023 | 13,433 | 13,433 |
| Difference (Supply-Demand) | 0 | 0 | 0 | 0 |
| Difference as % of Supply | 0% | 0% | 0% | 0% |
| Difference as % of Demand | 0% | 0% | 0% | 0% |

Demand totals do not include additional potential conservation and recycling savings to meet SB 7 target demands (Table 8)

Table 13
Supply and Demand Comparison - Single Dry Year (AFY)

| | 2015 | 2020 | 2025 | 2030-2040 |
|---|-------|--------|--------|-----------|
| Without Wisteria Project | | | | |
| Supply Totals | 8,550 | 10,990 | 13,400 | 13,400 |
| Demand Totals (without potential conservation) | 8,550 | 10,990 | 13,400 | 13,400 |
| Difference (Supply-Demand) | 0 | 0 | 0 | 0 |
| Difference as % of Supply | 0% | 0% | 0% | 0% |
| Difference as % of Demand | 0% | 0% | 0% | 0% |
| With Wisteria Project | | | | |
| Supply Totals | 8,550 | 11,023 | 13,433 | 13,433 |
| Demand Totals (without potential conservation) | 8,550 | 11,023 | 13,433 | 13,433 |
| Difference (Supply-Demand) | 0 | 0 | 0 | 0 |
| Difference as % of Supply | 0% | 0% | 0% | 0% |
| Difference as % of Demand | 0% | 0% | 0% | 0% |

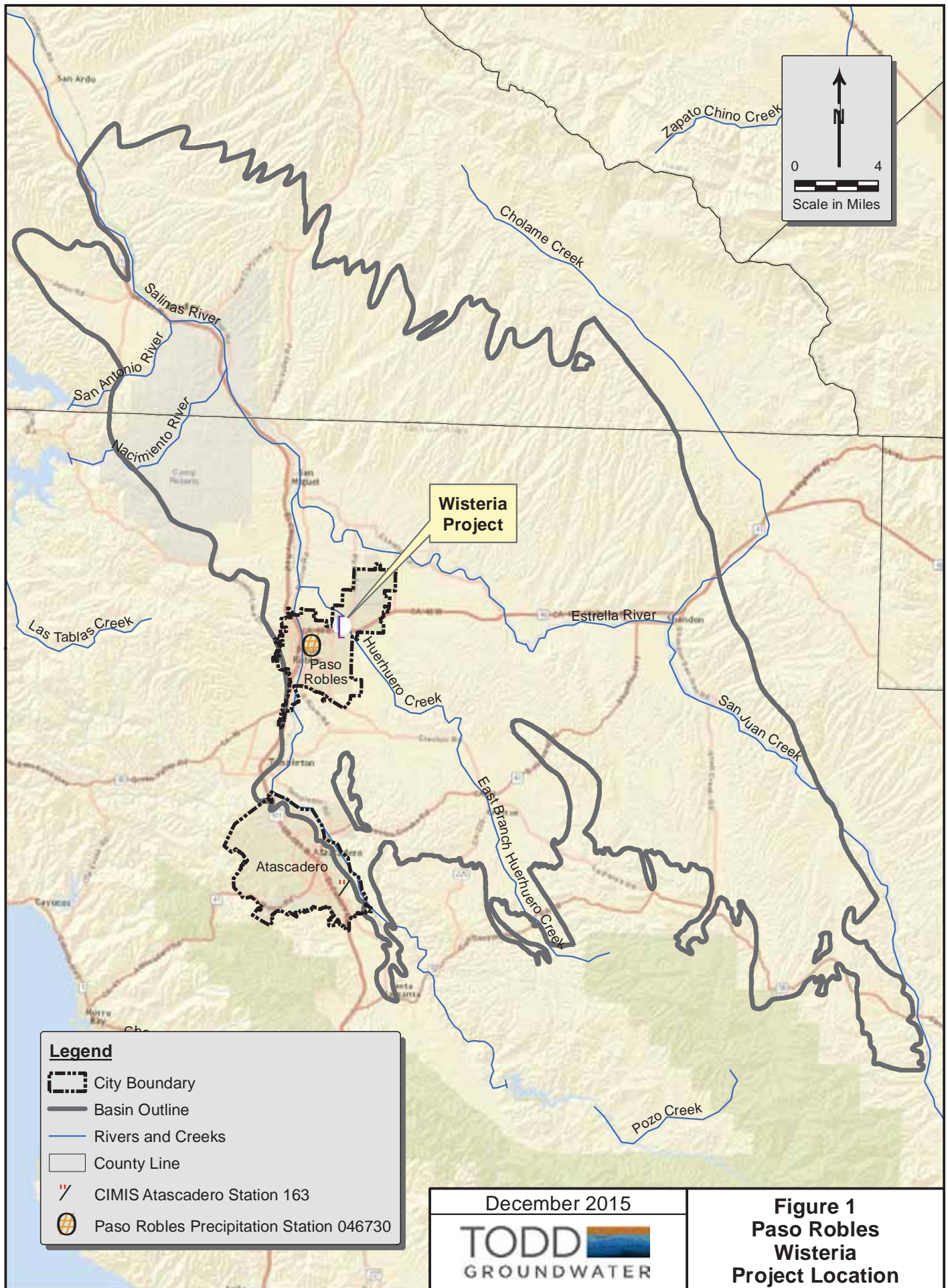
Demand totals do not include additional potential conservation and recycling savings to meet SB 7 target demands (Table 8)

Table 14
Supply and Demand Comparison — Multiple Dry-Year Events (AFY)

| | | 2015 | 2020 | 2025 | 2030-2040 |
|---|---|-------|--------|--------|-----------|
| Without Wisteria Project | | | | | |
| Multiple-Dry Year First Year Supply | Supply Totals | 8,550 | 10,990 | 13,400 | 13,400 |
| | Demand Totals (without potential conservation) | 8,550 | 10,990 | 13,400 | 13,400 |
| | Difference | 0 | 0 | 0 | 0 |
| | Difference as % of Supply | 0% | 0% | 0% | 0% |
| | Difference as % of Demand | 0% | 0% | 0% | 0% |
| Multiple-Dry Year Second Year Supply | Supply Totals | 8,550 | 10,990 | 13,400 | 13,400 |
| | Demand Totals (without potential conservation) | 8,550 | 10,990 | 13,400 | 13,400 |
| | Difference | 0 | 0 | 0 | 0 |
| | Difference as % of Supply | 0% | 0% | 0% | 0% |
| | Difference as % of Demand | 0% | 0% | 0% | 0% |
| Multiple-Dry Year Third Year Supply | Supply Totals | 8,550 | 10,990 | 13,400 | 13,400 |
| | Demand Totals (without potential conservation) | 8,550 | 10,990 | 13,400 | 13,400 |
| | Difference | 0 | 0 | 0 | 0 |
| | Difference as % of Supply | 0% | 0% | 0% | 0% |
| | Difference as % of Demand | 0% | 0% | 0% | 0% |
| With Wisteria Project | | | | | |
| Multiple-Dry Year First Year Supply | Supply Totals | 8,550 | 11,023 | 13,433 | 13,433 |
| | Demand Totals (without potential conservation) | 8,550 | 11,023 | 13,433 | 13,433 |
| | Difference | 0 | 0 | 0 | 0 |
| | Difference as % of Supply | 0% | 0% | 0% | 0% |
| | Difference as % of Demand | 0% | 0% | 0% | 0% |
| Multiple-Dry Year Second Year Supply | Supply Totals | 8,550 | 11,023 | 13,433 | 13,433 |
| | Demand Totals (without potential conservation) | 8,550 | 11,023 | 13,433 | 13,433 |
| | Difference | 0 | 0 | 0 | 0 |
| | Difference as % of Supply | 0% | 0% | 0% | 0% |
| | Difference as % of Demand | 0% | 0% | 0% | 0% |
| Multiple-Dry Year Third Year Supply | Supply Totals | 8,550 | 11,023 | 13,433 | 13,433 |
| | Demand Totals (without potential conservation) | 8,550 | 11,023 | 13,433 | 13,433 |
| | Difference | 0 | 0 | 0 | 0 |
| | Difference as % of Supply | 0% | 0% | 0% | 0% |
| | Difference as % of Demand | 0% | 0% | 0% | 0% |

Demand totals do not include additional potential conservation and recycling savings to meet SB 7 target demands (Table 8)

FIGURES



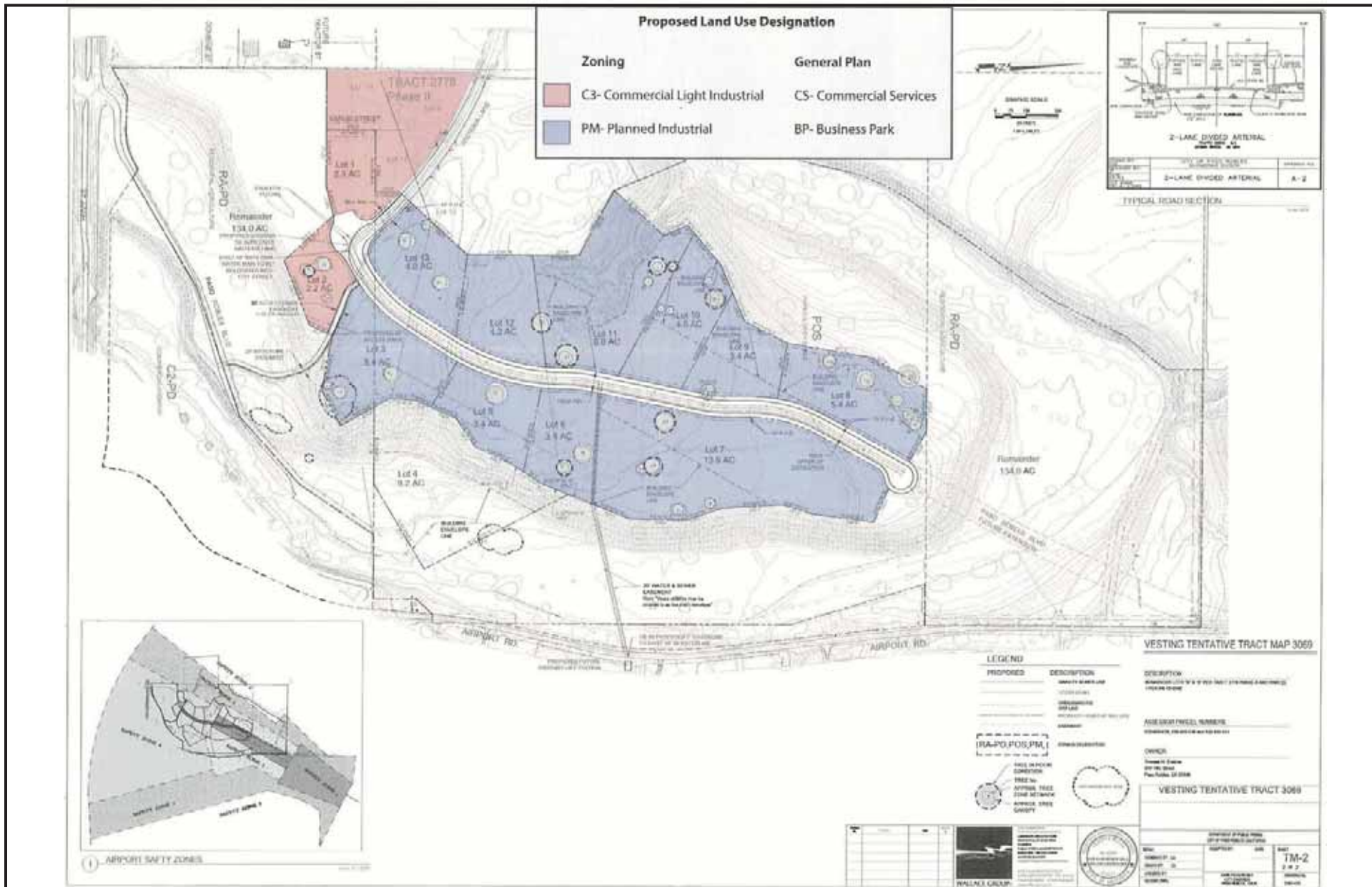
Legend

- City Boundary
- Basin Outline
- Rivers and Creeks
- County Line
- CIMIS Atascadero Station 163
- Paso Robles Precipitation Station 046730

December 2015

TODD **GROUNDWATER**

Figure 1
Paso Robles
Wisteria
Project Location

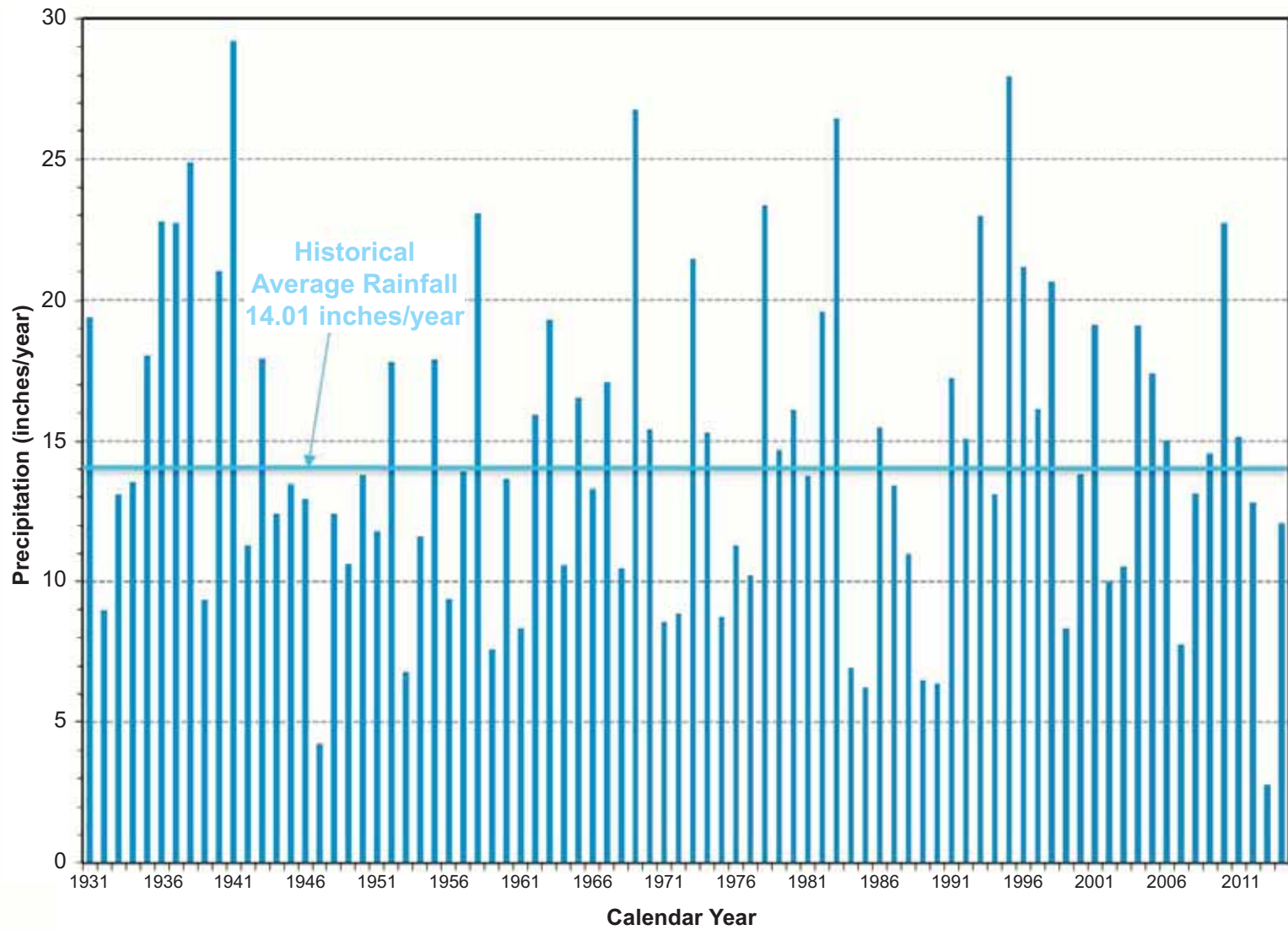


From: Wallace Group (December 2015).

December 2015



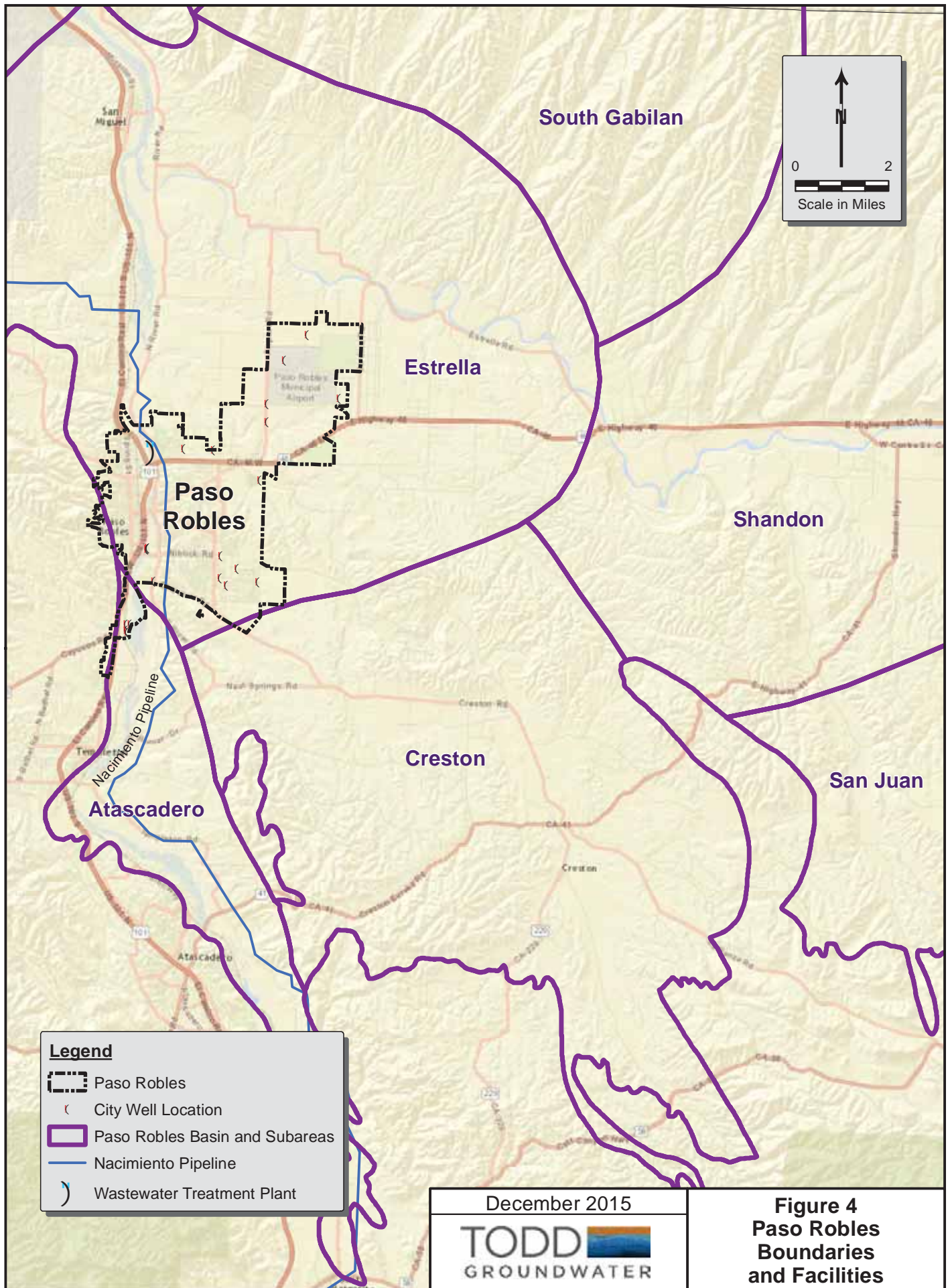
Figure 2
Wisteria Project
Planning Area



Precipitation data from Paso Robles Station 046730. See Table 4.



Figure 3
Paso Robles
Annual Rainfall



Legend

- Paso Robles
- City Well Location
- Paso Robles Basin and Subareas
- Nacimiento Pipeline
- Wastewater Treatment Plant

December 2015

TODD **GROUNDWATER**

Figure 4
Paso Robles
Boundaries
and Facilities

Wisteria Lane General Plan Amendment

Transportation Impact Analysis

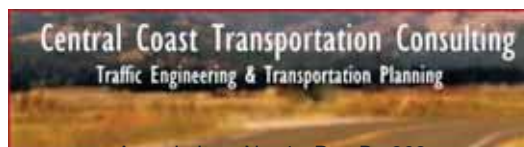
Central Coast Transportation Consulting

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Morro Bay, CA 93442

(805) 316-0101

December 2015



Executive Summary

This study evaluates the potential transportation impacts of the land use changes proposed as a part Vesting Tentative Tract Map 3069 located at the east end of Wisteria Lane in Paso Robles.

The following study intersections are evaluated during the weekday morning (7-9 AM) and evening (4-6 PM) time periods under Existing, Near-Term, and Cumulative conditions with and without the project:

1. Wisteria Lane/Golden Hill Road
2. Dallons Drive/Golden Hill Road
3. State Route 46 E/Golden Hill Road (Caltrans intersection)

The project is expected to generate 4,452 daily trips, 614 AM peak hour trips, and 603 PM peak hour trips on a typical weekday.

The City's Transportation Impact Analysis Guidelines and Caltrans criteria are applied to identify transportation deficiencies, summarized below.

Traffic Operations: The following deficiencies and improvements are noted:

- Wisteria Lane/Golden Hill Road: Long westbound queues are expected during the PM peak hour with the project in place. Installation of a dedicated northbound right-turn lane or a single lane roundabout would reduce queues and provide acceptable operations. A traffic signal would also reduce queuing and provide acceptable operations, but the peak hour signal warrant was not met.
- Dallons Drive/Golden Hill Road: This intersection would operate unacceptably under Cumulative conditions with the project in place. Installation of a traffic signal or multi-lane roundabout would provide acceptable operations.
- SR 46/Golden Hill Road: The addition of project traffic would worsen PM peak hour operations to LOS D under Near Term Plus Project, and LOS F under Cumulative Plus Project conditions. Per the Caltrans Corridor Study, this remains a low priority location for future improvements and improvements should focus on local parallel routes funded by the City's traffic impact fee. The City's Traffic Impact Fee program funds improvements to parallel local routes and the project provides an offer of dedication enabling the connection of Airport Road to Wisteria Lane. This will provide access to the Airport without relying on SR 46 and will improve parallel routes.

Bicycle and Pedestrian Facilities: The project would provide shared 13 foot bike/parking lanes along major roadways. This conforms to the City's Bike Master Plan, so no changes are recommended.

Transit: The project would not overburden area transit service. The project should coordinate with City staff to determine the appropriate locations and amenities for new transit stops near the site to accommodate future service expansion.

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Introduction

This study evaluates the potential transportation impacts of Vesting Tentative Tract Map 3069 and an associated General Plan Amendment in Paso Robles. The project site consists of roughly 60 acres located east of the existing end of pavement on Wisteria Lane, north of State Route 46 E (SR 46) and west of Airport Road.

The project's location and study intersections are shown on Figure 1 and Figure 2 shows the project's site plan.

The following intersections are evaluated during the weekday morning (7-9 AM) and evening (4-6 PM) time periods:

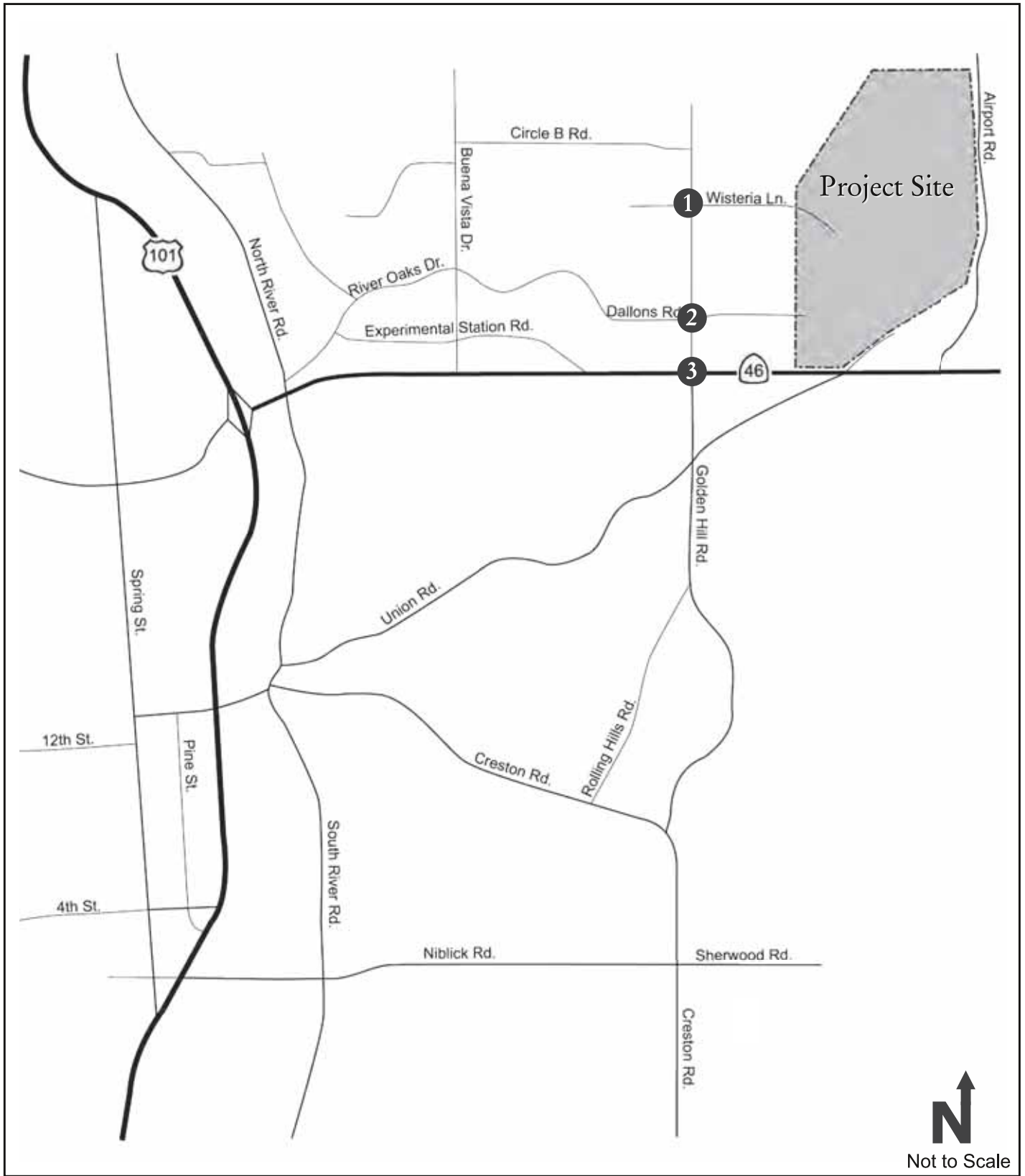
1. Wisteria Lane/Golden Hill Road
2. Dallons Drive/Golden Hill Road
3. State Route 46 E/Golden Hill Road (Caltrans intersection)

The study intersections are evaluated under these scenarios:

1. **Existing Conditions** reflect traffic counts collected in May 2014 and the existing transportation network.
2. **Existing Plus Project Conditions** add project generated traffic to Existing Conditions volumes.
3. **Near Term Conditions** add approved and pending projects in the study area to Existing Conditions volumes.
4. **Near Term Plus Project Conditions** add project traffic to Near Term Conditions volumes.
5. **Cumulative Conditions** reflect future traffic conditions developed using the City's Travel Demand Model as applied in the SR 46/Union Road PSR.
6. **Cumulative Plus Project Conditions** add project traffic to Cumulative Conditions volumes.

A description of the analysis approach follows Figures 1 and 2.

Figure 1: Project and Study Locations



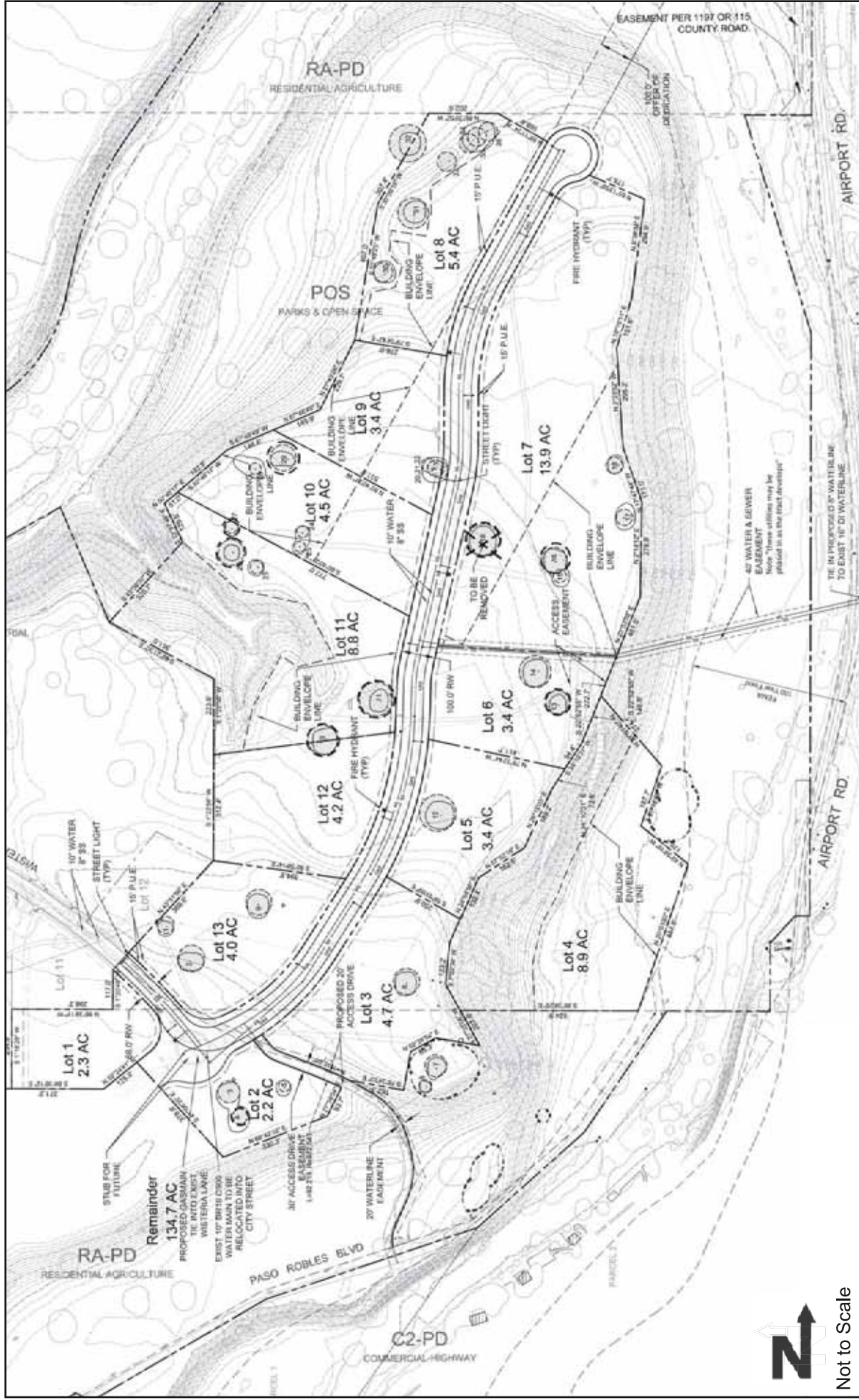
November 2015

Legend:

⑦ - Study Intersection

Wisteria Lane GPA

Figure 2: Site Plan



Not to Scale

Source: Wallace Group



ANALYSIS METHODS

The analysis approach was developed based on the City of Paso Robles' *Transportation Impact Analysis Guidelines* and Caltrans standards for intersections on SR 46.

City Facilities

The City's TIA Guidelines provide criteria for identifying mobility deficiencies reflecting the City's Circulation Element Goals. While vehicular level of service (LOS) is not identified as a mobility deficiency criteria for City controlled intersections, vehicular queues that exceed existing or planned lengths of turn pockets are a deficiency criteria. LOS calculations are also a component of the evaluation criteria for stop-controlled intersections.

In order to evaluate queuing and stop-controlled intersection LOS the study intersections have been analyzed with the Synchro 9 software package applying the 2010 Highway Capacity Manual (HCM) methods. The 95th percentile queues are reported, which reflect the queue length that will not be exceeded 95% of the time.

The City's TIA Guidelines specify mobility deficiency criteria for a variety of study elements. Table 2 summarizes these criteria, which are used to identify deficiencies.

| Table 1: City of Paso Robles Mobility Deficiency Criteria¹ | |
|--|--|
| Study Element | Deficiency Determination |
| On-site Circulation and Parking | Project designs fail to meet City or industry standard guidelines, fail to provide adequate truck access, will result in unsafe condition, or will create parking demand or supply above code requirement. |
| Pedestrian, Bicycle, Transit Facilities | Project fails to provide safe and accessible connections, conflicts with adopted plans, or adds trips to facility that doesn't meet current design standards. |
| Traffic Operations | Project causes vehicle queues that exceed turn pocket lengths, increases safety hazards, or causes stop-controlled intersection to operate below LOS D and meet signal warrant. |

1. Summary based on Table 5 of City's Transportation Impact Guidelines.

Caltrans Facilities

Caltrans controls the intersections along SR 46 and relies on LOS to determine deficiencies. Accordingly, Caltrans intersections have been evaluated using LOS criteria as contained in the 2010 HCM. Vehicular level of service is based on control delay, which is the total of time spent decelerating when approaching an intersection, time spent stopped or moving in a queue at an intersection, and time spent accelerating after an intersection.

The level of service thresholds relevant to the Caltrans controlled intersection in this study are presented in Table 2. Unsignalized intersections have lower delay thresholds because users experience more uncertainty than at signals, where drivers typically expect higher levels of congestion and more predictable levels of delay.

Caltrans strives to maintain operations at the LOS C/D threshold on state-operated facilities. If an existing State Highway facility is operating at LOS D, E, or F the existing service level should be maintained.

| Table 2: Vehicular Level of Service Thresholds | | | |
|---|-------------------------|---|-------------------------|
| Signalized Intersections¹ | | Stop Sign Controlled Intersections² | |
| Control Delay (seconds/vehicle) | Level of Service | Control Delay (seconds/vehicle) | Level of Service |
| ≤ 10 | A | ≤ 10 | A |
| > 10 - 20 | B | > 10 - 15 | B |
| > 20 - 35 | C | > 15 - 25 | C |
| > 35 - 55 | D | > 25 - 35 | D |
| > 55 - 80 | E | > 35 - 50 | E |
| > 80 | F | > 50 | F |

1. Per Exhibit 18-4 of the 2010 *Highway Capacity Manual*.

2. Per Exhibits 19-1 and 20-2 of the 2010 *Highway Capacity Manual*.

Existing Conditions

This section describes the existing transportation system and current operating conditions in the study area.

EXISTING ROADWAY NETWORK

US Highway 101 is a north-south facility connecting Los Angeles to San Francisco. In the vicinity of the project it is a four-lane freeway with a full access interchange at SR 46.

State Route 46 is an east-west facility connecting the Central Valley with the Central Coast. In the vicinity of the project it consists of four lanes with at-grade intersections.

Golden Hill Road is a north-south arterial with two travel lanes north of Dallons Drive and four travel lanes between SR 46 and Dallons Drive.

Dallons Drive is a two-lane east-west arterial connecting Buena Vista Drive to Golden Hill Road. West of Buena Vista Drive it becomes River Oaks Drive.

Wisteria Lane is a two-lane east-west arterial which intersects with Golden Hill Road and is currently less than one mile long.

EXISTING PEDESTRIAN AND BICYCLE FACILITIES

Pedestrian facilities include sidewalks, crosswalks, multi-use paths, and pedestrian signals at signalized intersections. Sidewalks are provided along paved portions of Wisteria Lane and portions of Golden Hill Road. Marked crosswalks are provided across three legs of the SR 46/Golden Hill Road intersection and two legs of Dallons Drive/Golden Hill Road.

Bicycle facilities consist of multi-use paths separate from the roadway (Class I), on-street striped bike lanes (Class II), and signed bike routes (Class III). Class II bike lanes are provided on Dallons Drive.

EXISTING TRANSIT SERVICE

The Paso Express provides fixed route and dial-a-ride transit service throughout the City of Paso Robles. The dial-a-ride service provides curb-to-curb service on weekdays from 7:00 AM to 1:00 PM.

The San Luis Obispo Regional Transit Authority (RTA) provides regional fixed-route and dial-a-ride services to San Luis Obispo County. Route 9 connects the North County and the City of San Luis Obispo, with a stop at Cuesta College North campus on weekdays. RTA also operates a summer beach shuttle connecting the North County to Cayucos.

EXISTING TRAFFIC CONDITIONS

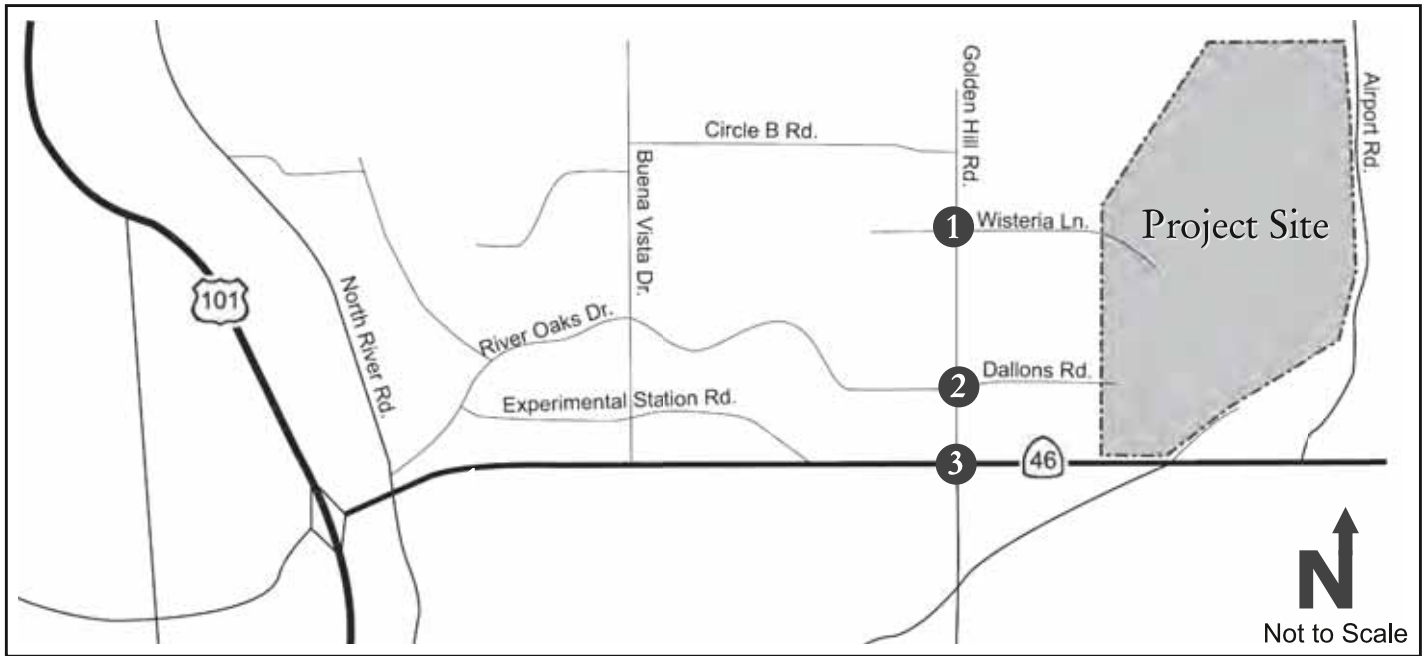
Traffic counts for weekday AM and PM peak hour conditions were collected at the study intersections in May 2014 when schools were in session. The traffic count sheets are included in Appendix A.

Figure 3 shows the existing peak hour traffic volumes and lane configurations. Table 3 presents the LOS for the study intersections, and the detailed calculation sheets are included in Appendix B.

| Table 3: Existing Intersection Levels of Service | | | | |
|---|------------------|--|------------------------|-----------------------------------|
| Intersection | Peak Hour | Delay¹ (sec/veh) | LOS² | Queues Exceed Storage? |
| 1. Wisteria Lane/ Golden Hill Road | AM | 2.0 (9.2) | A (A) | No |
| | PM | 7.3 (9.8) | A (A) | No |
| 2. Dallons Drive/ Golden Hill Road | AM | 4.8 (14.9) | A (B) | No |
| | PM | 6.0 (14.8) | A (B) | No |
| 3. State Route 46 E/ Golden Hill Road | AM | 20.0 | B | No |
| | PM | 21.3 | C | No |
| 1. HCM 2010 average control delay in seconds per vehicle. | | | | |
| 2. For side-street-stop controlled intersections the worst approach's delay is reported in parenthesis. | | | | |

All of the study intersections operate at LOS C or better during the weekday peak hours. Field observations did not show any queue spillback issues, consistent with the analysis results.

Figure 3: Existing Peak Hour Volumes and Lane Configurations



Existing Peak Hour Volumes

| | | |
|--|---|---|
| <p>1.</p> <p>Golden Hill Rd. Traffic Volumes: Northbound: 0(0) Southbound: 3(4) Eastbound: 0(0) Westbound: 24(108)</p> <p>Wisteria Ln. Traffic Volumes: Westbound: 0(0) Eastbound: 0(0) Southbound: 1(5) Northbound: 1(6) (left), 3(6) (through), 85(29) (right)</p> | <p>2.</p> <p>Golden Hill Rd. Traffic Volumes: Northbound: 2(8) Southbound: 24(115) Eastbound: 0(1) Westbound: 34(77)</p> <p>Dallons Rd. Traffic Volumes: Westbound: 6(5) Eastbound: 11(6) Southbound: 41(28) Northbound: 100(87) (left), 92(33) (through), 84(33) (right)</p> | <p>3.</p> <p>Golden Hill Rd. Traffic Volumes: Northbound: 117(231) Southbound: 99(211) Eastbound: 98(154) Westbound: 109(125) 597(770) 24(44)</p> <p>Highway 46 Traffic Volumes: Westbound: 144(146) Eastbound: 636(693) Southbound: 291(281) Northbound: 239(203) (left), 220(184) (through), 31(43) (right)</p> |
|--|---|---|

Existing Lane Configuration

| | | |
|-----------|-----------|-----------|
| <p>1.</p> | <p>2.</p> | <p>3.</p> |
|-----------|-----------|-----------|



Legend:

- ⑦ - Study Area Intersection
- xx(yy) - AM(PM) Peak Hour Traffic Volumes
- 🚦 - Traffic Signal
- ⊥ - Stop Sign

Existing Plus Project Conditions

This section evaluates the impacts of the proposed project on the surrounding transportation network, including traffic operations, bicycle, pedestrian, transit, and site access deficiencies. Existing Plus Project conditions reflect existing traffic levels plus the estimated traffic generated by the proposed project.

PROJECT TRAFFIC ESTIMATES

The amount of project traffic affecting the study intersections is estimated in three steps: trip generation, trip distribution, and trip assignment. Trip generation refers to the total number of new trips generated by the site. Trip distribution identifies the general origins and destination of these trips, and trip assignment identifies the specific routes taken to reach these origins and destinations.

Trip Generation

No specific uses are proposed as a part of the project, only generic zoning designations. The project proposes mixed amounts of Commercial/Light Industrial (C3), and Planned Industrial (PM) zoning.

Consistent with the approach taken in the City's Travel Demand Model and Circulation Element trips from the C3 zoned parcels were estimated using ITE's Business Park land use.

Trips for the PM uses were estimated using the Manufacturing land use. City staff provided an inventory of existing operational businesses on Wisteria Lane, all of which are zoned PM. Trip rates for these existing PM uses were derived using the land use inventory and traffic counts at the Wisteria Lane/Golden Hill intersection to determine the most appropriate ITE land use code for estimating trips. The Manufacturing land use provided the closest match, predicting a higher number of trips than the collected data.

The trip generation estimate is shown in Table 4.

| Proposed Zoning | Land Use | Size | Daily Trips | AM Peak Hour Trips | | | PM Peak Hour Trips | | |
|-----------------------------------|----------------------------|--------------|--------------|--------------------|------------|------------|--------------------|------------|------------|
| | | | | In | Out | Total | In | Out | Total |
| Planned Industrial (PM) | Manufacturing ¹ | 466,900 s.f. | 1,791 | 279 | 79 | 358 | 125 | 223 | 348 |
| Commercial/ Light Industrial (C3) | Business Park ² | 183,200 s.f. | 2,661 | 218 | 38 | 256 | 66 | 189 | 255 |
| Total Trips | | | 4,452 | 497 | 117 | 614 | 191 | 412 | 603 |

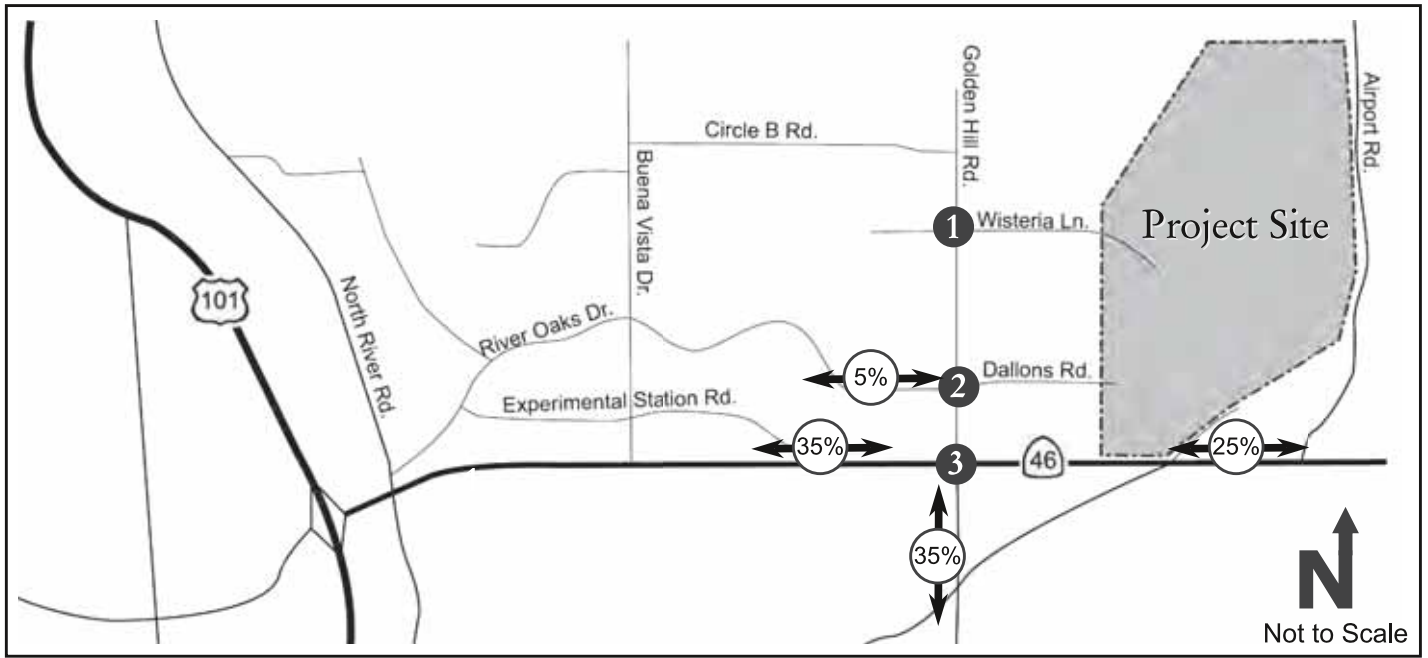
1. ITE Land Use Code #140. Fitted curve equations used.
 2. ITE Land Use Code #770. Fitted curve equations used.
 Source: ITE. *Trip Generation Manual*, 9th Edition, 2012; CCTC, 2015.

The project is expected to generate 4,452 daily trips, 614 AM peak hour trips, and 603 PM peak hour trips on a typical weekday.

Trip Distribution and Assignment

The directions of approach and departure for project trips were estimated using existing trip patterns and the locations of complementary land uses. Project trips were assigned to individual intersections based on the trip distribution percentages, and were then added to the existing traffic volumes to establish Existing Plus Project Conditions. **Figure 4** shows the trip distribution percentages, project trip assignment, and Existing Plus Project volumes.

Figure 4: Project Trip Distribution, Assignment, and Existing Plus Project Volumes



Project Trip Assignment

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------------|--|------------|--|--------------|---|--|----------|---|---------|-----------------|------------|--|-------------|---|--------|---|--|----------|---|-----------|-----------------|-----------|--|-----------|--|--|-----------|------------|---|---------|---|--|---------|
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| Golden Hill Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 117(412) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wisteria Ln. | ↘ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 497(191) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 6(21) | Golden Hill Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| ↘ 41(144) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 29(103) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ↖ 124(48) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Highway 46 | ↗ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | 174(67) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Existing Plus Project Peak Hour Volumes

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------|--------|--------|--------|--------|------------|-----------------|--|--------|--------|--------|------------|--------|--|--------|--|--------|--|--------------|--|---|---------|--------|------------|---------|--------|----------|-----------------|--|----------|-----------|---------|------------|----------|----------|-------------|--|--|------------|------------|------------|------------|------------|----------|-----------------|--|------------|------------|------------|------------|------------|----------|------------|--|
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| ↙ 0(0) | ↖ 0(0) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↘ 3(4) | ↙ 0(1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 0(0) | ↘ 141(520) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Golden Hill Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 1(6) | ↖ 3(6) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↘ 3(6) | ↙ 582(220) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 0(0) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↘ 0(0) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 1(5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wisteria Ln. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 8(29) | ↖ 0(2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↘ 135(507) | ↙ 4(14) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 0(1) | ↘ 34(77) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Golden Hill Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 31(15) | ↖ 100(87) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↘ 11(6) | ↙ 564(214) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 41(28) | ↘ 84(33) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dallons Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 158(375) | ↖ 233(173) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↘ 140(355) | ↙ 597(770) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 127(257) | ↘ 24(44) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Golden Hill Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 318(213) | ↖ 239(203) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↘ 636(693) | ↙ 394(251) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↙ 291(281) | ↘ 31(43) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Highway 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Legend:

- 7 - Study Area Intersection
- 3% - Project Trip Distribution Percentage
- xx(yy) - AM(PM) Peak Hour Traffic Volumes

DEFICIENCY ANALYSIS

The deficiency analysis for individual travel modes are discussed below.

Traffic Operations

Traffic operations deficiency criteria are described in the Analysis Methods section of this report. Table 5 summarizes the operating conditions under Existing and Existing Plus Project conditions.

| Table 5: Existing & Existing Plus Project Intersection Levels of Service | | | | | | |
|---|------------------|--|------------------------|--|------------------------|-----------------------------------|
| Intersection | Peak Hour | Existing | | Existing Plus Project | | |
| | | Delay¹ (sec/veh) | LOS² | Delay¹ (sec/veh) | LOS² | Queues Exceed Storage? |
| 1. Wisteria Lane/ Golden Hill Road | AM | 2.0 (9.2) | A (A) | 3.7 (18.9) | A (C) | No |
| | PM | 7.3 (9.8) | A (A) | 65.6 (95.8) | F (F) | Yes³ |
| 2. Dallons Drive/ Golden Hill Road | AM | 4.8 (14.9) | A (B) | 4.3 (54.0) | A (F) | No |
| | PM | 6.0 (14.8) | A (B) | 6.8 (54.4) | A (F) | No |
| 3. State Route 46 E/ Golden Hill Road | AM | 20.0 | B | 33.7 | C | No |
| | PM | 21.3 | C | 32.1 | C | Yes³ |

1. HCM 2010 average control delay in seconds per vehicle.
2. For side-street-stop controlled intersections the worst approach's delay is reported in parenthesis.
3. See Table 7 for detailed queues.

The addition of project traffic would result in excessive queuing and long delays at the Wisteria Lane/ Golden Hill Road intersection. Note that this intersection currently experiences relatively uneven flows throughout the peak hour, which results in a peak hour factor (PHF) of 0.63. An intersection with equal flow within the four 15-minute portions of an hour would have a PHF of 1; one with all of the hour's volume within a single 15-minute portion would have a PHF of 0.25.

With the project in place traffic flows are expected to become more evenly spread within the peak hour, resulting in a higher PHF. Standard industry practice assumes a PHF of 0.92 for future conditions where detailed operational characteristics are unknown. Applying a PHF of 0.92 yields a 95th percentile queue of six vehicles with the current lane configuration under Existing Plus Project conditions. Adding a northbound right turn lane would reduce the westbound queues to four vehicles with a 0.92 PHF and below 12 vehicles with a 0.63 PHF.

The Caltrans operated intersection of SR 46/Golden Hill Road experiences queue spillback for the southbound left turn lane but operates acceptably at LOS C, so no deficiencies are noted in accordance with Caltrans criteria.

Bicycles

Bicycle deficiencies would occur if the project disrupts existing or planned bicycle facilities or is otherwise incongruent with the City's Bike Master Plan. The Bike Master Plan proposes the following new bicycle facilities in the vicinity of the project:

- A Class II on-street bike lane on Golden Hill Road north of Dallons Drive, and sharrows between Dallons Drive and SR 46.
- A Class II on-street bike lane along the entire length of Wisteria Lane, Tractor Lane, and Engine Avenue.

The proposed Tentative Tract Map shows a typical cross section providing a shared 13 foot parking/bike lane. This is consistent with the Bike Master Plan's design standards.

Pedestrians

Pedestrian deficiencies would occur if the project fails to provide safe and accessible pedestrian connections between project buildings and adjacent streets, trails, and transit facilities. The typical roadway cross section shows sidewalks separated from the parking lane by a landscaped buffer, which provides adequate facilities to encourage and support walking.

Transit

Transit deficiencies would occur if the project disrupts existing or planned transit facilities or services; conflicts with City plans, guidelines, policies, or standards; or if the project adds trips to a line already operating at peak hour crush load capacity. The nearest transit stop is located on the Cuesta College campus, more than one mile from the project site. The project would not overburden existing transit service or conflict with future transit service expansions.

On-Site Circulation

On-site circulation deficiencies would occur if project designs fail to meet appropriate standards, fail to provide adequate truck access, or would result in hazardous or unsafe conditions.

The proposed site plan is shown on **Figure 2**. Project access will be provided via Wisteria Lane, with secondary emergency access provided via the connecting road.

The Connecting Road is identified as a future 2-lane divided arterial. Page CE-15 of the Circulation Element lists development policies, and item 12 notes that developers should be responsible for "Limited access on all arterials." This is consistent with industry standard treatment of arterial roadways, which typically carry high levels of traffic. Additional access points or turning movements add friction to the system, diminishing traffic flow efficiency and increasing the likelihood of collisions.

The planning-level nature of the site plans available at this time do not show driveways serving individual parcels. It is recommended that the number of driveways be minimized to the extent possible to reduce the number of conflict points along this future arterial consistent with the Circulation Element.

Near Term Traffic Conditions

Near Term conditions reflect the addition of approved and pending projects in the study area to Existing Conditions volumes. The following near-term projects are included in this scenario:

- Ayers Hotel- 190 hotel rooms, 36 extended stay units, and related amenities on the northeast corner of Buena Vista Drive and Experimental Station Road.
- La Quinta Inn- 30 additional hotel rooms and related amenities at 2615 Buena Vista Drive.
- Buena Vista Apartments- 142 apartment units located at 802 Experimental Station Road.
- River Oaks- The Next Generation- 144 active adult homes, 127 single family homes, community center, and fitness/wellness center located north of River Oaks Drive and east of River Road.
- Tract 2887- 51 single-family homes located at the southeast corner of River Oaks Drive and Experimental Station Road.
- RV Park- 332 spaces located at the north end of Golden Hill Road
- Wine Storage Building- 66,000 s.f. located at 2261 Wisteria Lane
- San Antonio Winery Processing Facility-126,000 s.f. located on Wisteria Lane.
- Hilton Garden Inn- 166 hotel rooms and related amenities located at 2348 Golden Hill Road
- San Antonio Winery Development-Tasting room, restaurant, four residences, and retail in addition to existing facilities at 2610 Buena Vista Drive
- Chrysler/Jeep Dealership- 29,800 s.f. located at the northeast corner of Golden Hill Road and Tractor Street.

Traffic volumes for the Ayers Hotel, Buena Vista Apartments, River Oaks, and Hilton Golden Hill projects were obtained from the traffic studies prepared for those projects. Traffic volumes for La Quinta Inn, Tract 2887, the RV park, wine storage building, San Antonio Winery Processing Facility, San Antonio Winery Development, and dealership were estimated using standard ITE rates. The roadway network was assumed to remain the same as under Existing conditions.

DEFICIENCY ANALYSIS

Project volumes were added to Near Term conditions to yield Near Term Plus Project conditions as shown on **Figure 5**. Table 6 summarizes the traffic conditions under Near Term and Near Term Plus Project conditions, with queues detailed in Table 7.

Note that a peak hour factor (PHF) of 0.92 was assumed for the study intersections under Near Term and Near Term Plus Project conditions. This PHF adjustment results in some intersections showing a reduction in delay or queuing under Near Term conditions compared to Existing conditions.

| Table 6: Near Term & Near Term Plus Project Intersection Levels of Service | | | | | | |
|--|-----------|---------------------------------|------------------|---------------------------------|------------------|---------------------------|
| Intersection | Peak Hour | Near Term | | Near Term Plus Project | | |
| | | Delay ¹ (sec/veh) | LOS ² | Delay ¹ (sec/veh) | LOS ² | Queues Exceed Storage? |
| 1. Wisteria Lane/ Golden Hill Road | AM | 1.8 (10.0) | A (B) | 3.0 (16.0) | A (C) | No |
| | PM | 7.1 (11.7) | A (B) | 45.9 (71.2) | E (F) | Yes ³ |
| 2. Dallons Drive/ Golden Hill Road | AM | 3.8 (18.3) | A (C) | 4.5 (60.8) | A (F) | No |
| | PM | 4.3 (17.7) | A (C) | 5.4 (50.4) | A (F) | No |
| 3. State Route 46 E/ Golden Hill Road | AM | 21.5 | C | 29.6 | C | No |
| | PM | 26.6 | C | 38.4 | D | Yes ³ |

1. HCM 2010 average control delay in seconds per vehicle.
2. For side-street-stop controlled intersections the worst approach's delay is reported in parenthesis.
3. See Table 7 for detailed queues.

Study intersections operate unacceptably at two locations with project traffic.

- The westbound 95th percentile queues at the Wisteria Lane/Golden Hill Road would exceed eighteen vehicles during the PM peak hour.
- The level of service at SR 46/Golden Hill Road would worsen from LOS C to LOS D in the PM. The 95th percentile queues in the southbound left turn lane spill out of the turn pockets.

Queues are detailed in Table 7. Note that some queue lengths shorter under Near Term conditions when compared to Existing conditions due to the PHF adjustment described above.

| Table 7: 95th Percentile Queues | | | | | | | |
|--|-----------------------|----------------|-----------|-------------------------------|----------------------|------------|-----------------------|
| Intersection | Direction | Storage Length | Peak Hour | 95th Percentile Queues (feet) | | | |
| | | | | Existing | Existing+ Project | Near Term | Near Term+ Project |
| 1. Wisteria Lane/ Golden Hill Road | Westbound Approach | N/A | AM | <20 | 63 | <20 | 43 |
| | | | PM | <20 | 610 | 38 | 465 |
| 2. Dallons Drive/ Golden Hill Road | Westbound Approach | N/A | AM | <20 | 45 | <20 | 55 |
| | | | PM | 25 | 98 | 25 | 78 |
| 3. State Route 46 E/ Golden Hill Road | Eastbound Left | 550 ft | AM | 72 | #207 | 104 | 188 |
| | | | PM | 76 | #158 | 98 | 147 |
| | Westbound Left | 460 ft | AM | 20 | 20 | 27 | 28 |
| | | | PM | 30 | 35 | 42 | 47 |
| | Northbound Left | 160 ft | AM | 102 | 108 | 125 | 137 |
| | | | PM | 94 | 109 | 126 | 145 |
| Southbound Left | 130 ft | AM | 54 | #74 | 68 | 87 | |
| | | PM | 79 | #198 | 103 | 173 | |

1. Queue length that would not be exceeded 95 percent of the time. Queues are reported only for turning movements where queues exceed storage capacity.
2. Westbound approach to Golden Hill Road at Wisteria Lane and Dallons Drive is a single shared lane, so no storage length is reported. Queues would block all movements.
Movements with queues exceeding storage are highlighted with **bold** numbers.

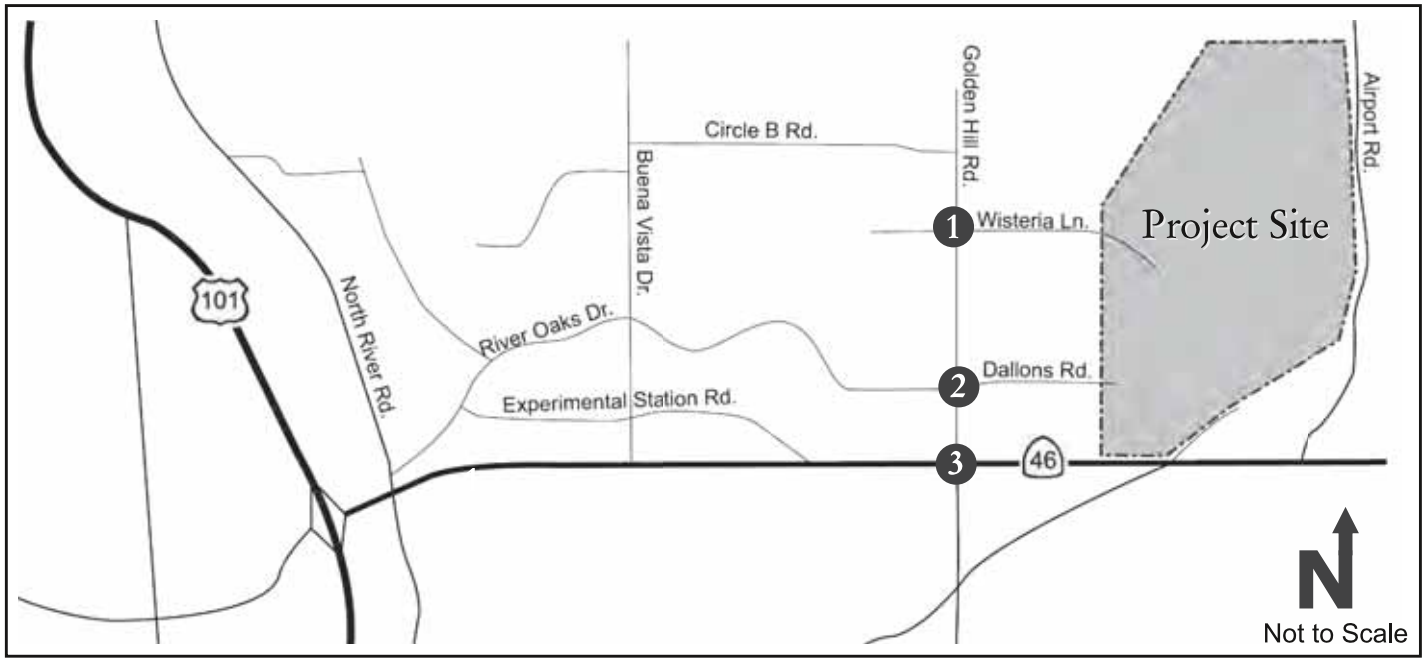
Potential mitigations for the Wisteria Lane/Golden Hill Road intersection under Near Term Plus Project conditions include:

- Adding a dedicated northbound right turn lane would provide overall LOS C operations with westbound 95th percentile queues of ten vehicles during the PM peak hour.
- A single lane roundabout would provide LOS B operations and 95th percentile queues of six vehicles for the westbound approach during the PM peak hour.

- A traffic signal would provide LOS A operations and westbound 95th percentile queues of under six vehicles during the PM peak hour. However, the peak hour signal warrant would not be met.

The SR 46/Golden Hill Road intersection has been deemed a low priority for improvement for Caltrans, with improvement of parallel route a higher priority. For informational purposes installation of a southbound right turn overlap phase would improve operations under Near Term plus Project conditions to LOS C.

Figure 5: Near Term and Near Term Plus Project Peak Hour Volumes



Near Term Peak Hour Volumes

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------------------------|-------------------------------|-----------------|--|----------------------------|---------------------------------|--------------|--|--|--------------------------------|-------------------------------|-----------------|--|--------------------------------|--------------------------------------|-------------|--|--|--|--------------------------------------|-----------------|--|--|--------------------------------------|------------|--|
| <p>1.</p> <table border="1"> <tr> <td> ↖ 0(0) ↓ 30(31) ↘ 0(0) </td> <td> ↖ 0(0) ↓ 0(1) ↘ 59(251) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Golden Hill Rd.</td> </tr> <tr> <td> ↖ 0(0) ↓ 0(0) ↘ 1(5) </td> <td> ↖ 1(6) ↓ 24(55) ↘ 221(79) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Wisteria Ln.</td> </tr> </table> | ↖ 0(0) ↓ 30(31) ↘ 0(0) | ↖ 0(0) ↓ 0(1) ↘ 59(251) | Golden Hill Rd. | | ↖ 0(0) ↓ 0(0) ↘ 1(5) | ↖ 1(6) ↓ 24(55) ↘ 221(79) | Wisteria Ln. | | <p>2.</p> <table border="1"> <tr> <td> ↖ 5(16) ↓ 83(277) ↘ 0(1) </td> <td> ↖ 0(2) ↓ 5(14) ↘ 47(77) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Golden Hill Rd.</td> </tr> <tr> <td> ↖ 14(9) ↓ 13(6) ↘ 46(36) </td> <td> ↖ 107(95) ↓ 241(128) ↘ 125(33) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Dallons Rd.</td> </tr> </table> | ↖ 5(16) ↓ 83(277) ↘ 0(1) | ↖ 0(2) ↓ 5(14) ↘ 47(77) | Golden Hill Rd. | | ↖ 14(9) ↓ 13(6) ↘ 46(36) | ↖ 107(95) ↓ 241(128) ↘ 125(33) | Dallons Rd. | | <p>3.</p> <table border="1"> <tr> <td> ↖ 143(292) ↓ 130(277) ↘ 119(199) </td> <td> ↖ 162(152) ↓ 625(818) ↘ 38(59) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Golden Hill Rd.</td> </tr> <tr> <td> ↖ 217(183) ↓ 675(729) ↘ 342(330) </td> <td> ↖ 273(251) ↓ 293(222) ↘ 41(53) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Highway 46</td> </tr> </table> | ↖ 143(292) ↓ 130(277) ↘ 119(199) | ↖ 162(152) ↓ 625(818) ↘ 38(59) | Golden Hill Rd. | | ↖ 217(183) ↓ 675(729) ↘ 342(330) | ↖ 273(251) ↓ 293(222) ↘ 41(53) | Highway 46 | |
| ↖ 0(0) ↓ 30(31) ↘ 0(0) | ↖ 0(0) ↓ 0(1) ↘ 59(251) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Golden Hill Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↖ 0(0) ↓ 0(0) ↘ 1(5) | ↖ 1(6) ↓ 24(55) ↘ 221(79) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wisteria Ln. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↖ 5(16) ↓ 83(277) ↘ 0(1) | ↖ 0(2) ↓ 5(14) ↘ 47(77) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Golden Hill Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↖ 14(9) ↓ 13(6) ↘ 46(36) | ↖ 107(95) ↓ 241(128) ↘ 125(33) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dallons Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↖ 143(292) ↓ 130(277) ↘ 119(199) | ↖ 162(152) ↓ 625(818) ↘ 38(59) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Golden Hill Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↖ 217(183) ↓ 675(729) ↘ 342(330) | ↖ 273(251) ↓ 293(222) ↘ 41(53) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Highway 46 | | | | | | | | | | | | | | | | | | | | | | | | | | |

Near Term Plus Project Peak Hour Volumes

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------------------------|--------------------------------|-----------------|--|----------------------------|----------------------------------|--------------|--|---|----------------------------------|-------------------------------|-----------------|--|---------------------------------|--------------------------------------|-------------|--|--|--|--------------------------------------|-----------------|--|--|--------------------------------------|------------|--|
| <p>1.</p> <table border="1"> <tr> <td> ↖ 0(0) ↓ 30(31) ↘ 0(0) </td> <td> ↖ 0(0) ↓ 0(1) ↘ 176(663) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Golden Hill Rd.</td> </tr> <tr> <td> ↖ 0(0) ↓ 0(0) ↘ 1(5) </td> <td> ↖ 1(6) ↓ 24(55) ↘ 718(270) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Wisteria Ln.</td> </tr> </table> | ↖ 0(0) ↓ 30(31) ↘ 0(0) | ↖ 0(0) ↓ 0(1) ↘ 176(663) | Golden Hill Rd. | | ↖ 0(0) ↓ 0(0) ↘ 1(5) | ↖ 1(6) ↓ 24(55) ↘ 718(270) | Wisteria Ln. | | <p>2.</p> <table border="1"> <tr> <td> ↖ 11(37) ↓ 194(669) ↘ 0(1) </td> <td> ↖ 0(2) ↓ 5(14) ↘ 47(77) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Golden Hill Rd.</td> </tr> <tr> <td> ↖ 39(19) ↓ 13(6) ↘ 46(36) </td> <td> ↖ 107(95) ↓ 713(309) ↘ 125(33) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Dallons Rd.</td> </tr> </table> | ↖ 11(37) ↓ 194(669) ↘ 0(1) | ↖ 0(2) ↓ 5(14) ↘ 47(77) | Golden Hill Rd. | | ↖ 39(19) ↓ 13(6) ↘ 46(36) | ↖ 107(95) ↓ 713(309) ↘ 125(33) | Dallons Rd. | | <p>3.</p> <table border="1"> <tr> <td> ↖ 184(436) ↓ 171(421) ↘ 148(302) </td> <td> ↖ 286(200) ↓ 625(818) ↘ 38(59) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Golden Hill Rd.</td> </tr> <tr> <td> ↖ 391(250) ↓ 675(729) ↘ 342(330) </td> <td> ↖ 273(251) ↓ 467(289) ↘ 41(53) </td> </tr> <tr> <td colspan="2" style="text-align: center;">Highway 46</td> </tr> </table> | ↖ 184(436) ↓ 171(421) ↘ 148(302) | ↖ 286(200) ↓ 625(818) ↘ 38(59) | Golden Hill Rd. | | ↖ 391(250) ↓ 675(729) ↘ 342(330) | ↖ 273(251) ↓ 467(289) ↘ 41(53) | Highway 46 | |
| ↖ 0(0) ↓ 30(31) ↘ 0(0) | ↖ 0(0) ↓ 0(1) ↘ 176(663) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Golden Hill Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↖ 0(0) ↓ 0(0) ↘ 1(5) | ↖ 1(6) ↓ 24(55) ↘ 718(270) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wisteria Ln. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↖ 11(37) ↓ 194(669) ↘ 0(1) | ↖ 0(2) ↓ 5(14) ↘ 47(77) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Golden Hill Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↖ 39(19) ↓ 13(6) ↘ 46(36) | ↖ 107(95) ↓ 713(309) ↘ 125(33) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dallons Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↖ 184(436) ↓ 171(421) ↘ 148(302) | ↖ 286(200) ↓ 625(818) ↘ 38(59) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Golden Hill Rd. | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ↖ 391(250) ↓ 675(729) ↘ 342(330) | ↖ 273(251) ↓ 467(289) ↘ 41(53) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Highway 46 | | | | | | | | | | | | | | | | | | | | | | | | | | |



Legend:

⑦ - Study Area Intersection

xx(yy) - AM(PM) Peak Hour Traffic Volumes

Cumulative Traffic Conditions

Cumulative conditions reflect future year traffic volumes and planned roadway improvements. Cumulative and Cumulative Plus Project conditions are discussed in this section.

CUMULATIVE ROADWAY NETWORK

The Cumulative conditions analysis reflects planned roadway capacity expansions identified in the City's Circulation Element, which calls for the development of routes parallel to SR 46 among other projects. Wisteria Lane would be extended east to the future Connecting Road. The Connecting Road would be realigned to form the north leg of the planned SR 46/Union Road intersection.

The City and Caltrans have completed a Project Study Report for the SR 46/Union Road intersection and are in the process of initiating a Project Approval and Environmental Document (PAED) which will evaluate an overcrossing, undercrossing, full interchange, and no-build alternative. Per City staff direction, an overcrossing was assumed for Cumulative conditions. Once the PAED document is completed and an alternative is selected for design, the analysis may be revisited.

No improvements were assumed at the four study intersections, so the study intersection lane configurations have not been changed from Existing conditions.

CUMULATIVE TRAFFIC FORECASTS

The City's Travel Demand Model was developed to forecast future travel patterns in the City. The Model incorporates future improvements identified in the Circulation Element and projected land uses both locally and regionally to output future year traffic forecasts. The Highway 46/Union Road Project Study Report further refined the City's Model to forecast traffic in the study area.

Cumulative No Project traffic forecasts were obtained from the Project Study Report overcrossing only alternative, adjusted to reflect the more recent counts collected for the Wisteria Lane project.

A new Union Road overcrossing would serve project traffic destined south of SR 46. Accordingly, a portion of project traffic was assigned to the new overcrossing instead of the Golden Hill Road corridor. This reduces the project traffic using the study intersections on Golden Hill Road. Project traffic was added to Cumulative conditions volumes to yield Cumulative Plus Project conditions as shown in **Figure 6**.

CUMULATIVE TRAFFIC CONDITIONS

Table 8 summarizes Cumulative traffic conditions with and without the project.

| Table 8: Cumulative & Cumulative Plus Project Intersection Levels of Service | | | | | | |
|---|------------------|--|------------------------|--|------------------------|---|
| Intersection | Peak Hour | Cumulative | | Cumulative Plus Project | | |
| | | Delay¹ (sec/veh) | LOS² | Delay¹ (sec/veh) | LOS² | Queues Exceed Storage³? |
| 1. Wisteria Lane/ Golden Hill Road | AM | 5.7 (13.7) | A (B) | 12.3 (45.7) | B (E) | Yes³ |
| | PM | 9.6 (15.4) | A (C) | 82.1 (136.5) | F (F) | Yes³ |
| 2. Dallons Drive/ Golden Hill Road | AM | 21.3 (82.7) | C (F) | 98.8 (>200) | F (F) | Yes³ |
| | PM | 67.0 (>200) | F (F) | >200 (>200) | F (F) | Yes³ |
| 3. State Route 46 E/ Golden Hill Road | AM | 42.0 | D | 54.0 | D | Yes³ |
| | PM | 70.3 | E | 88.5 | F | Yes³ |

1. HCM 2010 average control delay in seconds per vehicle.
2. For side-street-stop controlled intersections the worst approach's delay is reported in parenthesis.
3. 95th percentile volume exceeds capacity in both cumulative and cumulative plus project, queue may be longer.

All study intersections operate unacceptably during the AM and PM peak hours with the project.

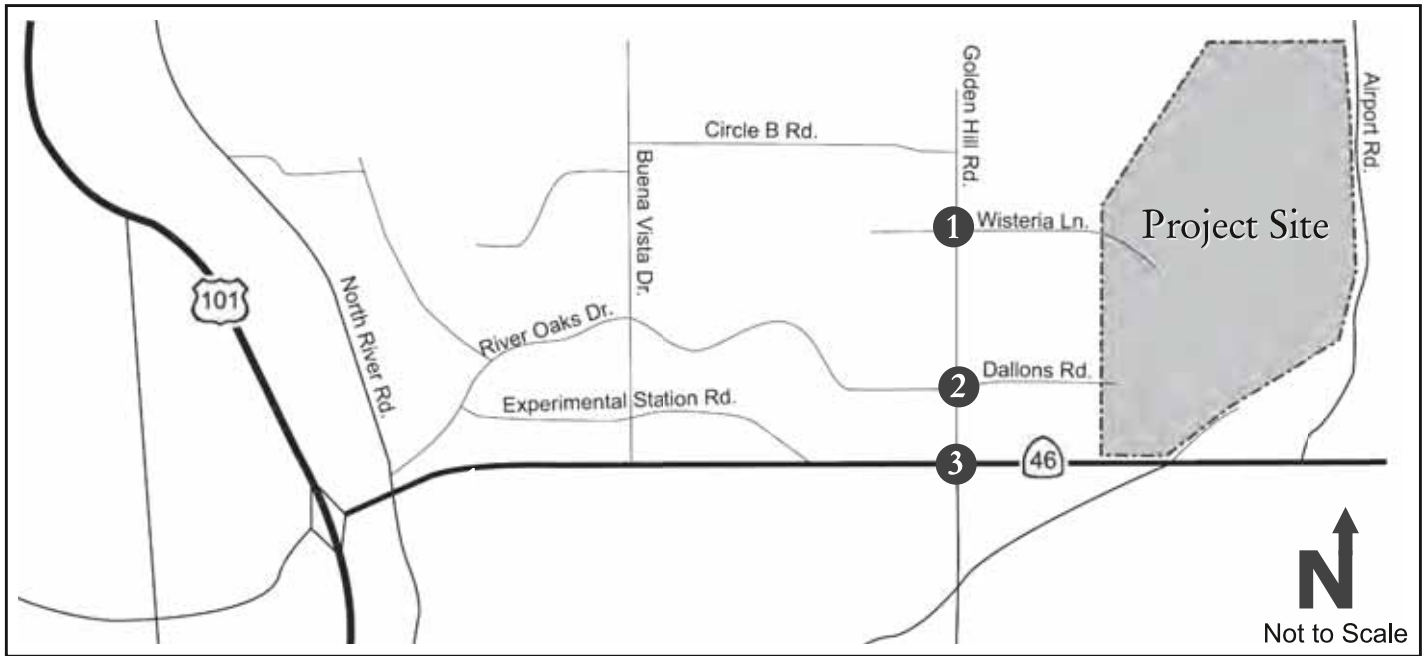
CUMULATIVE DEFICIENCIES

The following improvements would minimize deficiencies identified under Cumulative Plus Project conditions:

- Wisteria Lane/Golden Hill Road: Install a traffic signal or single lane roundabout as described in the Existing Plus Project conditions section.
- Dallons Drive/Golden Hill Road: Install a traffic signal or roundabout. A roundabout would likely require multiple lanes serving northbound and southbound through volumes.
- SR 46/Golden Hill Road: Improve parallel local routes. This is consistent with the Caltrans SR 46 Corridor System Management Plan, which notes that Golden Hill Road remains a low-priority for location improvement and that local road improvements are a high priority within the corridor. The City's Traffic Impact Fee program funds improvements to parallel local routes and the project provides an offer of dedication enabling the connection of Airport Road to Wisteria Lane. This will provide access to the Airport without relying on SR 46 and will improve parallel routes. The implementation of transportation demand management strategies, such as programs supporting increases in non-auto travel modes, carpools, ridesharing, and park-and-ride facilities would further reduce the demand for travel along the SR 46 corridor.

Note that that improvements above may need to be revisited depending on the preferred alternative resulting from the Union Road/SR 46 PAED.

Figure 6: Cumulative and Cumulative Plus Project Peak Hour Volumes



Cumulative Peak Hour Volumes

| | | | | | | | | | | | | | | |
|--|---|--|--|-----------------------------|---|---------------------------|---|---|---------------------------------|---|----------------------------------|---|---|--------------------------------|
| <p>1.</p> <table border="1"> <tr> <td> 20(10) 30(35) 20(10) </td> <td> Golden Hill Rd. 10(20) 20(20) 80(255) </td> </tr> <tr> <td> Wisteria Ln. 0(0) 90(50) 10(20) </td> <td> 25(15) 30(55) 225(80) </td> </tr> </table> | 20(10) 30(35) 20(10) | Golden Hill Rd. 10(20) 20(20) 80(255) | Wisteria Ln. 0(0) 90(50) 10(20) | 25(15) 30(55) 225(80) | <p>2.</p> <table border="1"> <tr> <td> 10(20) 90(280) 2(2) </td> <td> Golden Hill Rd. 2(2) 105(115) 125(221) </td> </tr> <tr> <td> Dallons Rd. 20(10) 53(81) 50(50) </td> <td> 110(100) 250(130) 221(81) </td> </tr> </table> | 10(20) 90(280) 2(2) | Golden Hill Rd. 2(2) 105(115) 125(221) | Dallons Rd. 20(10) 53(81) 50(50) | 110(100) 250(130) 221(81) | <p>3.</p> <table border="1"> <tr> <td> 150(300) 208(297) 205(369) </td> <td> Golden Hill Rd. 248(188) 1167(1295) 170(196) </td> </tr> <tr> <td> Highway 46 220(190) 743(1031) 386(602) </td> <td> 467(582) 335(312) 50(60) </td> </tr> </table> | 150(300) 208(297) 205(369) | Golden Hill Rd. 248(188) 1167(1295) 170(196) | Highway 46 220(190) 743(1031) 386(602) | 467(582) 335(312) 50(60) |
| 20(10) 30(35) 20(10) | Golden Hill Rd. 10(20) 20(20) 80(255) | | | | | | | | | | | | | |
| Wisteria Ln. 0(0) 90(50) 10(20) | 25(15) 30(55) 225(80) | | | | | | | | | | | | | |
| 10(20) 90(280) 2(2) | Golden Hill Rd. 2(2) 105(115) 125(221) | | | | | | | | | | | | | |
| Dallons Rd. 20(10) 53(81) 50(50) | 110(100) 250(130) 221(81) | | | | | | | | | | | | | |
| 150(300) 208(297) 205(369) | Golden Hill Rd. 248(188) 1167(1295) 170(196) | | | | | | | | | | | | | |
| Highway 46 220(190) 743(1031) 386(602) | 467(582) 335(312) 50(60) | | | | | | | | | | | | | |

Cumulative Plus Project Peak Hour Volumes

| | | | | | | | | | | | | | | |
|---|---|---|---|------------------------------|--|----------------------------|---|---|---------------------------------|---|----------------------------------|---|---|--------------------------------|
| <p>1.</p> <table border="1"> <tr> <td> 20(10) 30(35) 20(10) </td> <td> Golden Hill Rd. 10(20) 26(41) 168(564) </td> </tr> <tr> <td> Wisteria Ln. 0(0) 115(60) 10(20) </td> <td> 25(15) 30(55) 598(223) </td> </tr> </table> | 20(10) 30(35) 20(10) | Golden Hill Rd. 10(20) 26(41) 168(564) | Wisteria Ln. 0(0) 115(60) 10(20) | 25(15) 30(55) 598(223) | <p>2.</p> <table border="1"> <tr> <td> 16(41) 172(569) 2(2) </td> <td> Golden Hill Rd. 2(2) 105(115) 125(221) </td> </tr> <tr> <td> Dallons Rd. 45(20) 53(81) 50(50) </td> <td> 110(100) 598(264) 221(81) </td> </tr> </table> | 16(41) 172(569) 2(2) | Golden Hill Rd. 2(2) 105(115) 125(221) | Dallons Rd. 45(20) 53(81) 50(50) | 110(100) 598(264) 221(81) | <p>3.</p> <table border="1"> <tr> <td> 185(424) 226(359) 234(472) </td> <td> Golden Hill Rd. 372(236) 1167(1295) 170(196) </td> </tr> <tr> <td> Highway 46 369(247) 743(1031) 386(602) </td> <td> 467(582) 410(341) 50(60) </td> </tr> </table> | 185(424) 226(359) 234(472) | Golden Hill Rd. 372(236) 1167(1295) 170(196) | Highway 46 369(247) 743(1031) 386(602) | 467(582) 410(341) 50(60) |
| 20(10) 30(35) 20(10) | Golden Hill Rd. 10(20) 26(41) 168(564) | | | | | | | | | | | | | |
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| Dallons Rd. 45(20) 53(81) 50(50) | 110(100) 598(264) 221(81) | | | | | | | | | | | | | |
| 185(424) 226(359) 234(472) | Golden Hill Rd. 372(236) 1167(1295) 170(196) | | | | | | | | | | | | | |
| Highway 46 369(247) 743(1031) 386(602) | 467(582) 410(341) 50(60) | | | | | | | | | | | | | |



Legend:

⑦ - Study Area Intersection

xx(yy) - AM(PM) Peak Hour Traffic Volumes

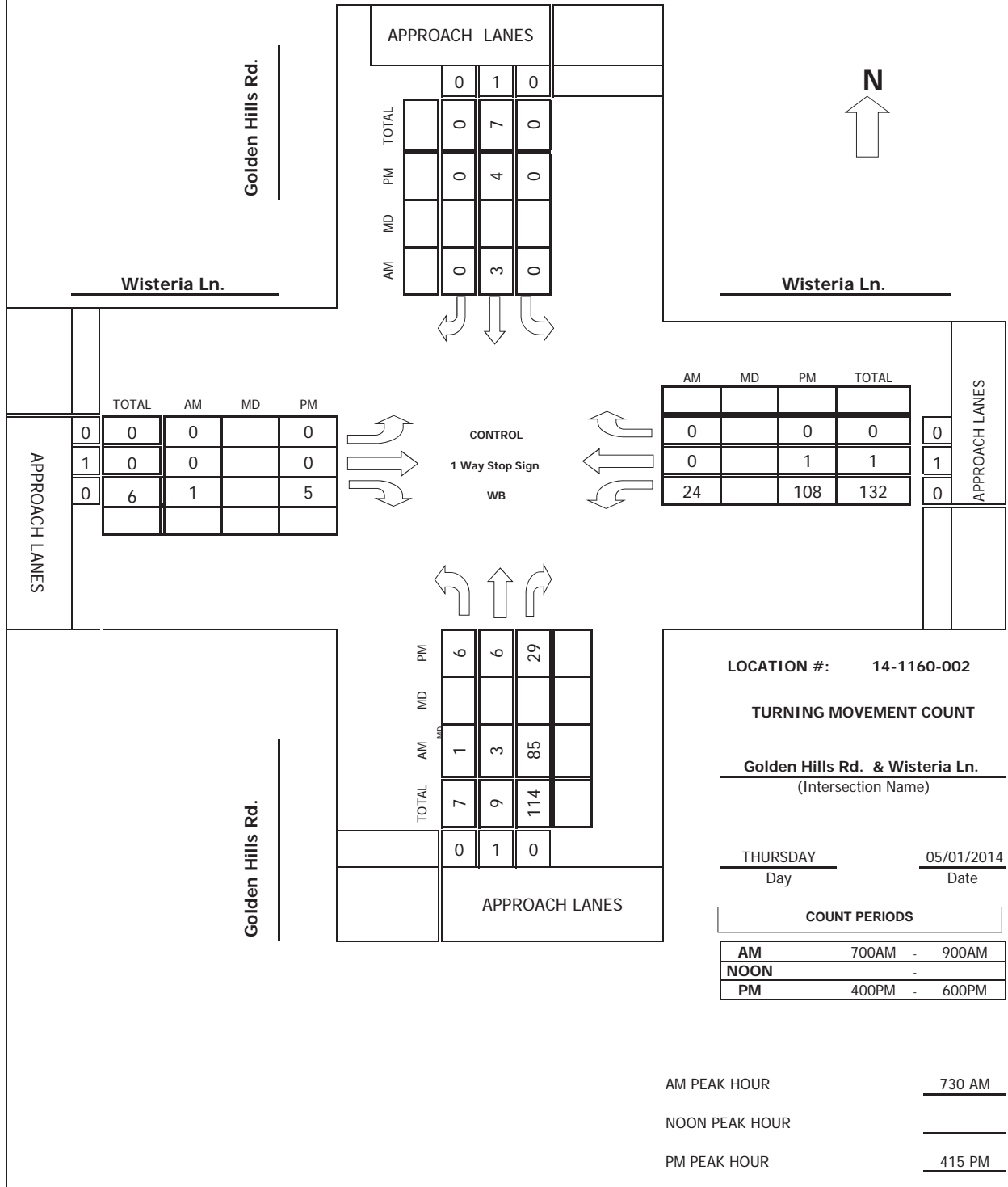
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Appendix A: Traffic Count Sheets

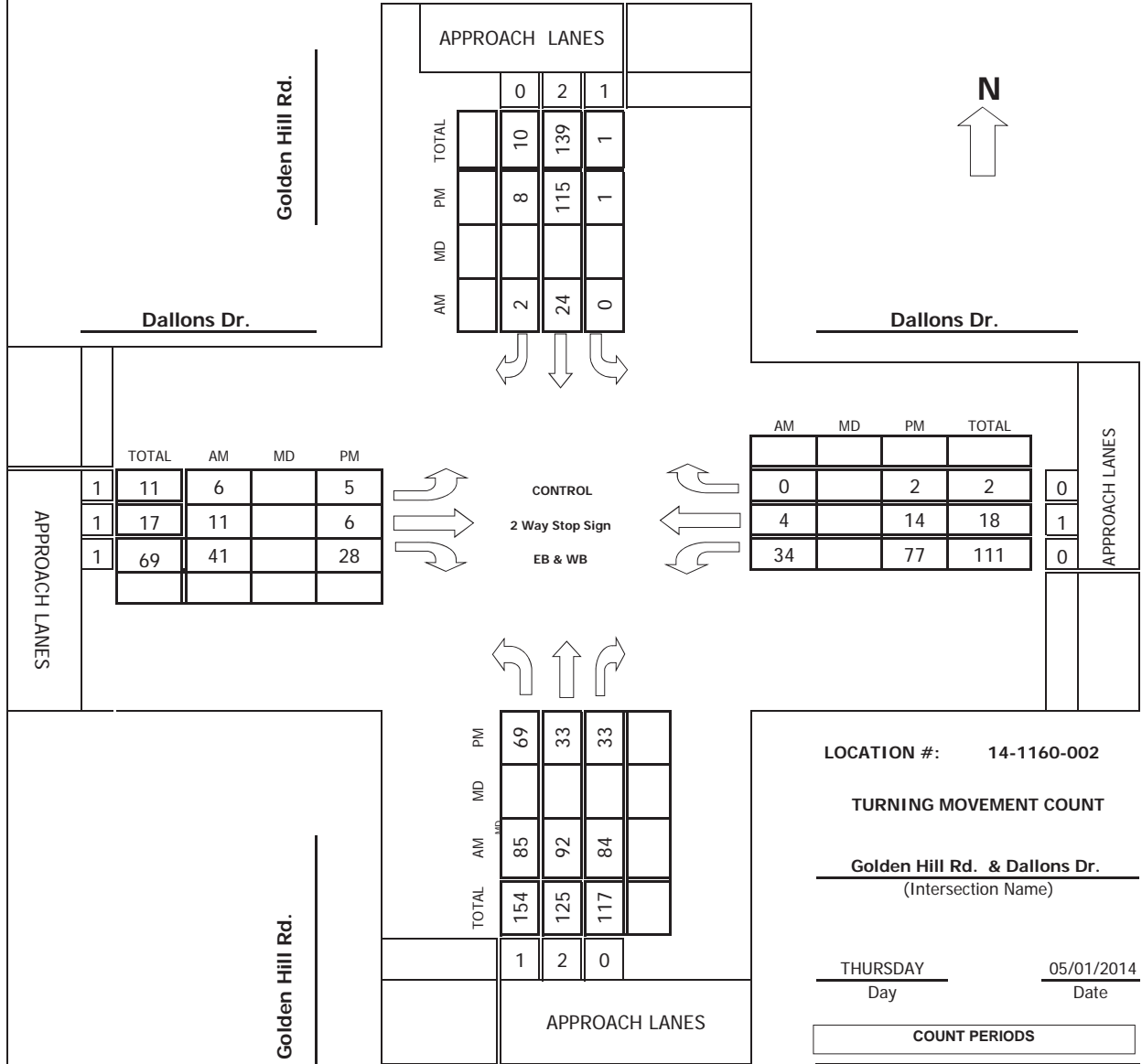
Project #: 14-1160-002

TMC SUMMARY OF Golden Hills Rd. & Wisteria Ln.



Project #: 14-1160-002

TMC SUMMARY OF Golden Hill Rd. & Dallons Dr.



| | | | | |
|---|-------|----|----|----|
| | TOTAL | AM | MD | PM |
| 1 | 11 | 6 | | 5 |
| 1 | 17 | 11 | | 6 |
| 1 | 69 | 41 | | 28 |

| | | | |
|----------------|----|-----|---|
| APPROACH LANES | | | |
| | 0 | 2 | 1 |
| TOTAL | 10 | 139 | 1 |
| PM | 8 | 115 | 1 |
| MD | | | |
| AM | 2 | 24 | 0 |

| | | | |
|-------|----|----|----|
| TOTAL | AM | MD | PM |
| 154 | 85 | | 69 |
| 125 | 92 | | 33 |
| 117 | 84 | | 33 |

| | | | | |
|--|----|----|----|-------|
| | AM | MD | PM | TOTAL |
| | 0 | | 2 | 2 |
| | 4 | | 14 | 18 |
| | 34 | | 77 | 111 |

LOCATION #: 14-1160-002

TURNING MOVEMENT COUNT

Golden Hill Rd. & Dallons Dr.
(Intersection Name)

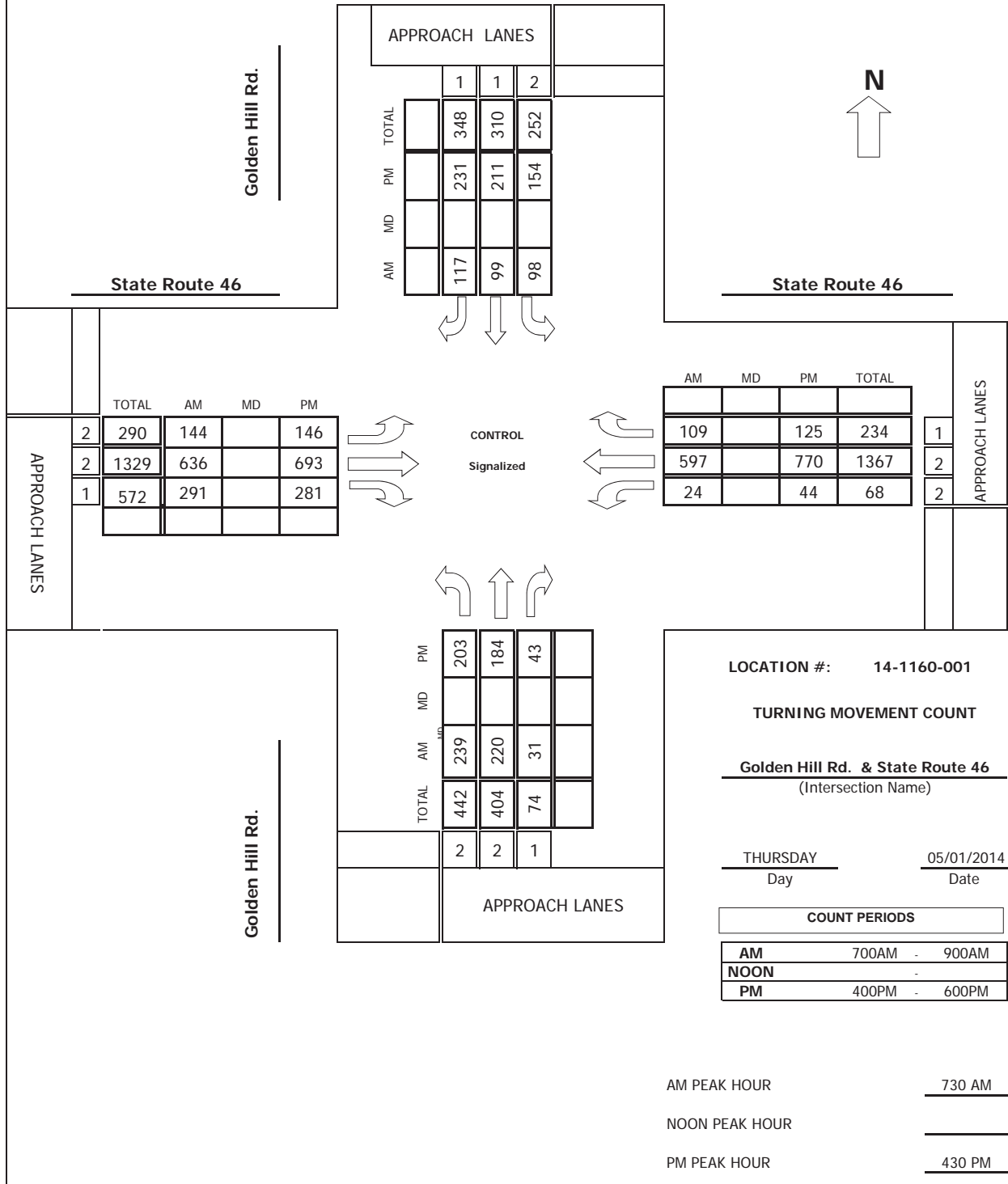
THURSDAY 05/01/2014
Day Date

| COUNT PERIODS | |
|---------------|---------------|
| AM | 700AM - 900AM |
| NOON | - |
| PM | 400PM - 600PM |

AM PEAK HOUR 730 AM
 NOON PEAK HOUR _____
 PM PEAK HOUR 415 PM

Project #: 14-1160-001

TMC SUMMARY OF Golden Hill Rd. & State Route 46



Appendix B: LOS/Queue Calculation Sheets

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Existing AM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 0 | 1 | 24 | 0 | 0 | 1 | 3 | 85 | 0 | 3 | 0 |
| Future Vol, veh/h | 0 | 0 | 1 | 24 | 0 | 0 | 1 | 3 | 85 | 0 | 3 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 2 | 39 | 0 | 0 | 2 | 5 | 139 | 0 | 5 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 83 | 153 | 5 | 84 | 83 | 75 | 5 | 0 | 0 | 144 | 0 | 0 |
| Stage 1 | 5 | 5 | - | 78 | 78 | - | - | - | - | - | - | - |
| Stage 2 | 78 | 148 | - | 6 | 5 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 904 | 739 | 1078 | 903 | 807 | 986 | 1616 | - | - | 1438 | - | - |
| Stage 1 | 1017 | 892 | - | 931 | 830 | - | - | - | - | - | - | - |
| Stage 2 | 931 | 775 | - | 1016 | 892 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 903 | 738 | 1078 | 901 | 806 | 986 | 1616 | - | - | 1438 | - | - |
| Mov Cap-2 Maneuver | 903 | 738 | - | 901 | 806 | - | - | - | - | - | - | - |
| Stage 1 | 1016 | 892 | - | 930 | 829 | - | - | - | - | - | - | - |
| Stage 2 | 930 | 774 | - | 1014 | 892 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|-----|-----|----|
| HCM Control Delay, s | 8.3 | 9.2 | 0.1 | 0 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1616 | - | - | 1078 | 901 | 1438 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.002 | 0.044 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.3 | 9.2 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.1 | 0 | - | - |

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Existing AM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 6 | 11 | 41 | 34 | 4 | 0 | 100 | 92 | 84 | 0 | 24 | 2 |
| Future Vol, veh/h | 6 | 11 | 41 | 34 | 4 | 0 | 100 | 92 | 84 | 0 | 24 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 8 | 15 | 55 | 45 | 5 | 0 | 133 | 123 | 112 | 0 | 32 | 3 |


| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|------|------|--------|------|------|--------|---|---|--------|---|---|
| Conflicting Flow All | 364 | 534 | 17 | 468 | 480 | 117 | 35 | 0 | 0 | 235 | 0 | 0 |
| Stage 1 | 33 | 33 | - | 445 | 445 | - | - | - | - | - | - | - |
| Stage 2 | 331 | 501 | - | 23 | 35 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 567 | 451 | 1058 | 478 | 484 | 913 | 1575 | - | - | 1329 | - | - |
| Stage 1 | 979 | 867 | - | 562 | 573 | - | - | - | - | - | - | - |
| Stage 2 | 656 | 541 | - | 992 | 865 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 526 | 413 | 1058 | 413 | 443 | 913 | 1575 | - | - | 1329 | - | - |
| Mov Cap-2 Maneuver | 526 | 413 | - | 413 | 443 | - | - | - | - | - | - | - |
| Stage 1 | 896 | 867 | - | 515 | 525 | - | - | - | - | - | - | - |
| Stage 2 | 595 | 495 | - | 925 | 865 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|----|
| HCM Control Delay, s | 10.2 | 14.9 | 2.7 | 0 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|------|-----|
| Capacity (veh/h) | 1575 | - | - | 526 | 795 | 416 | 1329 | - |
| HCM Lane V/C Ratio | 0.085 | - | - | 0.015 | 0.087 | 0.122 | - | - |
| HCM Control Delay (s) | 7.5 | - | - | 12 | 10 | 14.9 | 0 | - |
| HCM Lane LOS | A | - | - | B | B | B | A | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0 | 0.3 | 0.4 | 0 | - |

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Existing AM
11/11/2015



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 178 | 785 | 359 | 30 | 737 | 135 | 295 | 310 | 121 | 122 | 144 |
| v/c Ratio | 0.47 | 0.54 | 0.41 | 0.14 | 0.70 | 0.23 | 0.52 | 0.39 | 0.41 | 0.45 | 0.36 |
| Control Delay | 37.0 | 17.8 | 3.6 | 37.6 | 25.7 | 4.9 | 32.4 | 24.1 | 39.1 | 35.6 | 4.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.0 | 17.8 | 3.6 | 37.6 | 25.7 | 4.9 | 32.4 | 24.1 | 39.1 | 35.6 | 4.0 |
| Queue Length 50th (ft) | 38 | 115 | 0 | 6 | 147 | 0 | 62 | 57 | 26 | 50 | 0 |
| Queue Length 95th (ft) | 72 | 198 | 32 | 20 | 201 | 27 | 102 | 90 | 54 | 99 | 6 |
| Internal Link Dist (ft) | | 3280 | | 1790 | | | 877 | | 877 | | |
| Turn Bay Length (ft) | 550 | | 490 | 460 | | 390 | 160 | | 130 | | |
| Base Capacity (vph) | 392 | 1645 | 953 | 213 | 1455 | 761 | 736 | 2336 | 294 | 1012 | 938 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.45 | 0.48 | 0.38 | 0.14 | 0.51 | 0.18 | 0.40 | 0.13 | 0.41 | 0.12 | 0.15 |

Intersection Summary

| | | | | | | | | | | | | |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Arrive On Green | 0.08 | 0.35 | 0.35 | 0.03 | 0.33 | 0.33 | 0.12 | 0.25 | 0.25 | 0.06 | 0.18 | 0.18 |
| Sat Flow, veh/h | 3442 | 3282 | 1570 | 3442 | 3282 | 1569 | 3442 | 3119 | 431 | 3442 | 1863 | 1557 |
| Grp Volume(v), veh/h | 178 | 785 | 359 | 30 | 737 | 135 | 295 | 153 | 157 | 121 | 122 | 144 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1641 | 1570 | 1721 | 1641 | 1569 | 1721 | 1770 | 1781 | 1721 | 1863 | 1557 |
| Q Serve(g_s), s | 3.2 | 12.9 | 6.9 | 0.5 | 12.3 | 4.0 | 5.2 | 4.5 | 4.6 | 2.2 | 3.6 | 5.3 |
| Cycle Q Clear(g_c), s | 3.2 | 12.9 | 6.9 | 0.5 | 12.3 | 4.0 | 5.2 | 4.5 | 4.6 | 2.2 | 3.6 | 5.3 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.24 | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 276 | 1152 | 551 | 89 | 1077 | 515 | 424 | 438 | 441 | 202 | 341 | 285 |
| V/C Ratio(X) | 0.64 | 0.68 | 0.65 | 0.34 | 0.68 | 0.26 | 0.70 | 0.35 | 0.36 | 0.60 | 0.36 | 0.50 |
| Avail Cap(c_a), veh/h | 436 | 1819 | 870 | 218 | 1611 | 770 | 817 | 1317 | 1325 | 327 | 1121 | 937 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 28.2 | 17.5 | 5.5 | 30.2 | 18.4 | 15.6 | 26.6 | 19.6 | 19.6 | 29.0 | 22.5 | 23.2 |
| Incr Delay (d2), s/veh | 2.5 | 0.7 | 1.3 | 2.2 | 0.8 | 0.3 | 2.1 | 0.5 | 0.5 | 2.8 | 0.6 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 5.9 | 4.1 | 0.3 | 5.6 | 1.7 | 2.6 | 2.3 | 2.3 | 1.1 | 1.9 | 2.4 |
| LnGrp Delay(d),s/veh | 30.7 | 18.2 | 6.8 | 32.4 | 19.2 | 15.9 | 28.6 | 20.0 | 20.1 | 31.8 | 23.2 | 24.6 |
| LnGrp LOS | C | B | A | C | B | B | C | C | C | C | C | C |
| Approach Vol, veh/h | | 1322 | | | 902 | | 605 | | 387 | | | |
| Approach Delay, s/veh | | 16.8 | | | 19.1 | | 24.2 | | 26.4 | | | |
| Approach LOS | | B | | | B | | C | | C | | | |


Intersection Summary

| | | | | | | | | | | | | |
|---------------------|--|--|--|--|--|--|------|--|--|--|--|--|
| HCM 2010 Ctrl Delay | | | | | | | 20.0 | | | | | |
| HCM 2010 LOS | | | | | | | B | | | | | |

Notes

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Existing AM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (veh/h) | 144 | 636 | 291 | 24 | 597 | 109 | 239 | 220 | 31 | 98 | 99 | 117 |
| Future Volume (veh/h) | 144 | 636 | 291 | 24 | 597 | 109 | 239 | 220 | 31 | 98 | 99 | 117 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 178 | 785 | 359 | 30 | 737 | 135 | 295 | 272 | 38 | 121 | 122 | 144 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 276 | 1152 | 551 | 89 | 1077 | 515 | 424 | 772 | 107 | 202 | 341 | 285 |
| Arrive On Green | 0.08 | 0.35 | 0.35 | 0.03 | 0.33 | 0.33 | 0.12 | 0.25 | 0.25 | 0.06 | 0.18 | 0.18 |
| Sat Flow, veh/h | 3442 | 3282 | 1570 | 3442 | 3282 | 1569 | 3442 | 3119 | 431 | 3442 | 1863 | 1557 |
| Grp Volume(v), veh/h | 178 | 785 | 359 | 30 | 737 | 135 | 295 | 153 | 157 | 121 | 122 | 144 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1641 | 1570 | 1721 | 1641 | 1569 | 1721 | 1770 | 1781 | 1721 | 1863 | 1557 |
| Q Serve(g_s), s | 3.2 | 12.9 | 6.9 | 0.5 | 12.3 | 4.0 | 5.2 | 4.5 | 4.6 | 2.2 | 3.6 | 5.3 |
| Cycle Q Clear(g_c), s | 3.2 | 12.9 | 6.9 | 0.5 | 12.3 | 4.0 | 5.2 | 4.5 | 4.6 | 2.2 | 3.6 | 5.3 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.24 | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 276 | 1152 | 551 | 89 | 1077 | 515 | 424 | 438 | 441 | 202 | 341 | 285 |
| V/C Ratio(X) | 0.64 | 0.68 | 0.65 | 0.34 | 0.68 | 0.26 | 0.70 | 0.35 | 0.36 | 0.60 | 0.36 | 0.50 |
| Avail Cap(c_a), veh/h | 436 | 1819 | 870 | 218 | 1611 | 770 | 817 | 1317 | 1325 | 327 | 1121 | 937 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 28.2 | 17.5 | 5.5 | 30.2 | 18.4 | 15.6 | 26.6 | 19.6 | 19.6 | 29.0 | 22.5 | 23.2 |
| Incr Delay (d2), s/veh | 2.5 | 0.7 | 1.3 | 2.2 | 0.8 | 0.3 | 2.1 | 0.5 | 0.5 | 2.8 | 0.6 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 5.9 | 4.1 | 0.3 | 5.6 | 1.7 | 2.6 | 2.3 | 2.3 | 1.1 | 1.9 | 2.4 |
| LnGrp Delay(d),s/veh | 30.7 | 18.2 | 6.8 | 32.4 | 19.2 | 15.9 | 28.6 | 20.0 | 20.1 | 31.8 | 23.2 | 24.6 |
| LnGrp LOS | C | B | A | C | B | B | C | C | C | C | C | C |
| Approach Vol, veh/h | | 1322 | | | 902 | | 605 | | 387 | | | |
| Approach Delay, s/veh | | 16.8 | | | 19.1 | | 24.2 | | 26.4 | | | |
| Approach LOS | | B | | | B | | C | | C | | | |

Intersection Summary

| | | | | | | | | | | | | |
|---------------------|--|--|--|--|--|--|------|--|--|--|--|--|
| HCM 2010 Ctrl Delay | | | | | | | 20.0 | | | | | |
| HCM 2010 LOS | | | | | | | B | | | | | |

Notes

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Existing PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 0 | 5 | 108 | 1 | 0 | 6 | 6 | 29 | 0 | 4 | 0 |
| Future Vol, veh/h | 0 | 0 | 5 | 108 | 1 | 0 | 6 | 6 | 29 | 0 | 4 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 8 | 171 | 2 | 0 | 10 | 10 | 46 | 0 | 6 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 58 | 81 | 6 | 62 | 58 | 33 | 6 | 0 | 0 | 56 | 0 | 0 |
| Stage 1 | 6 | 6 | - | 52 | 52 | - | - | - | - | - | - | - |
| Stage 2 | 52 | 75 | - | 10 | 6 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 939 | 809 | 1077 | 933 | 833 | 1041 | 1615 | - | - | 1549 | - | - |
| Stage 1 | 1016 | 891 | - | 961 | 852 | - | - | - | - | - | - | - |
| Stage 2 | 961 | 833 | - | 1011 | 891 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 933 | 804 | 1077 | 922 | 828 | 1041 | 1615 | - | - | 1549 | - | - |
| Mov Cap-2 Maneuver | 933 | 804 | - | 922 | 828 | - | - | - | - | - | - | - |
| Stage 1 | 1010 | 891 | - | 955 | 847 | - | - | - | - | - | - | - |
| Stage 2 | 953 | 828 | - | 1004 | 891 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|-----|-----|----|
| HCM Control Delay, s | 8.4 | 9.8 | 1.1 | 0 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1615 | - | - | 1077 | 921 | 1549 | - | - |
| HCM Lane V/C Ratio | 0.006 | - | - | 0.007 | 0.188 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.4 | 9.8 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.7 | 0 | - | - |

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Existing PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 5 | 6 | 28 | 77 | 14 | 2 | 87 | 33 | 33 | 1 | 115 | 8 |
| Future Vol, veh/h | 5 | 6 | 28 | 77 | 14 | 2 | 87 | 33 | 33 | 1 | 115 | 8 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 8 | 37 | 103 | 19 | 3 | 116 | 44 | 44 | 1 | 153 | 11 |


| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|------|------|--------|------|------|--------|---|---|--------|---|---|
| Conflicting Flow All | 424 | 481 | 82 | 381 | 465 | 44 | 164 | 0 | 0 | 88 | 0 | 0 |
| Stage 1 | 161 | 161 | - | 298 | 298 | - | - | - | - | - | - | - |
| Stage 2 | 263 | 320 | - | 83 | 167 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 514 | 483 | 961 | 552 | 493 | 1017 | 1412 | - | - | 1506 | - | - |
| Stage 1 | 825 | 764 | - | 686 | 666 | - | - | - | - | - | - | - |
| Stage 2 | 719 | 651 | - | 916 | 759 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 465 | 443 | 961 | 490 | 452 | 1017 | 1412 | - | - | 1506 | - | - |
| Mov Cap-2 Maneuver | 465 | 443 | - | 490 | 452 | - | - | - | - | - | - | - |
| Stage 1 | 757 | 763 | - | 630 | 611 | - | - | - | - | - | - | - |
| Stage 2 | 638 | 598 | - | 871 | 758 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|-----|
| HCM Control Delay, s | 10.2 | 14.8 | 4.4 | 0.1 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|
| Capacity (veh/h) | 1412 | - | - | 465 | 797 | 489 | 1506 | - |
| HCM Lane V/C Ratio | 0.082 | - | - | 0.014 | 0.057 | 0.254 | 0.001 | - |
| HCM Control Delay (s) | 7.8 | - | - | 12.9 | 9.8 | 14.8 | 7.4 | - |
| HCM Lane LOS | A | - | - | B | A | B | A | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0 | 0.2 | 1 | 0 | - |

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Existing PM
11/11/2015




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR | |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|--|
| Lane Group Flow (vph) | 152 | 722 | 293 | 46 | 802 | 130 | 211 | 237 | 160 | 220 | 241 | |
| v/c Ratio | 0.47 | 0.55 | 0.37 | 0.16 | 0.74 | 0.22 | 0.46 | 0.28 | 0.49 | 0.59 | 0.50 | |
| Control Delay | 41.0 | 21.9 | 4.1 | 37.6 | 27.4 | 5.0 | 36.0 | 21.1 | 41.4 | 35.3 | 9.9 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 41.0 | 21.9 | 4.1 | 37.6 | 27.4 | 5.0 | 36.0 | 21.1 | 41.4 | 35.3 | 9.9 | |
| Queue Length 50th (ft) | 35 | 152 | 0 | 10 | 170 | 0 | 47 | 40 | 37 | 94 | 10 | |
| Queue Length 95th (ft) | 76 | 233 | 50 | 30 | 274 | 36 | 94 | 75 | 79 | 179 | 72 | |
| Internal Link Dist (ft) | 3280 | | | 1790 | | | 877 | | | 877 | | |
| Turn Bay Length (ft) | 550 | | 490 | 460 | | 390 | 160 | | 130 | | 130 | |
| Base Capacity (vph) | 326 | 1584 | 897 | 279 | 1450 | 755 | 559 | 2156 | 326 | 1038 | 959 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.47 | 0.46 | 0.33 | 0.16 | 0.55 | 0.17 | 0.38 | 0.11 | 0.49 | 0.21 | 0.25 | |

Intersection Summary

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Existing PM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (veh/h) | 146 | 693 | 281 | 44 | 770 | 125 | 203 | 184 | 43 | 154 | 211 | 231 |
| Future Volume (veh/h) | 146 | 693 | 281 | 44 | 770 | 125 | 203 | 184 | 43 | 154 | 211 | 231 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 152 | 722 | 293 | 46 | 802 | 130 | 211 | 192 | 45 | 160 | 220 | 241 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 241 | 1068 | 511 | 213 | 1116 | 534 | 320 | 711 | 163 | 251 | 427 | 358 |
| Arrive On Green | 0.07 | 0.33 | 0.33 | 0.06 | 0.34 | 0.34 | 0.09 | 0.25 | 0.25 | 0.07 | 0.23 | 0.23 |
| Sat Flow, veh/h | 3442 | 3282 | 1569 | 3442 | 3282 | 1569 | 3442 | 2855 | 653 | 3442 | 1863 | 1563 |
| Grp Volume(v), veh/h | 152 | 722 | 293 | 46 | 802 | 130 | 211 | 117 | 120 | 160 | 220 | 241 |
| Grp Sat Flow(s), veh/h/ln | 1721 | 1641 | 1569 | 1721 | 1641 | 1569 | 1721 | 1770 | 1738 | 1721 | 1863 | 1563 |
| Q Serve(g_s), s | 2.8 | 12.4 | 6.6 | 0.8 | 14.0 | 3.9 | 3.9 | 3.5 | 3.6 | 3.0 | 6.7 | 9.2 |
| Cycle Q Clear(g_c), s | 2.8 | 12.4 | 6.6 | 0.8 | 14.0 | 3.9 | 3.9 | 3.5 | 3.6 | 3.0 | 6.7 | 9.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.38 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 241 | 1068 | 511 | 213 | 1116 | 534 | 320 | 441 | 433 | 251 | 427 | 358 |
| V/C Ratio(X) | 0.63 | 0.68 | 0.57 | 0.22 | 0.72 | 0.24 | 0.66 | 0.27 | 0.28 | 0.64 | 0.52 | 0.67 |
| Avail Cap(c_a), veh/h | 368 | 1782 | 852 | 213 | 1631 | 780 | 632 | 1245 | 1223 | 368 | 1168 | 980 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 29.6 | 19.1 | 7.7 | 29.2 | 18.8 | 15.5 | 28.6 | 19.7 | 19.8 | 29.5 | 22.0 | 23.0 |
| Incr Delay (d2), s/veh | 2.7 | 0.8 | 1.0 | 0.5 | 0.9 | 0.2 | 2.3 | 0.3 | 0.3 | 2.7 | 1.0 | 2.2 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 1.4 | 5.7 | 3.6 | 0.4 | 6.4 | 1.7 | 1.9 | 1.7 | 1.8 | 1.5 | 3.6 | 4.2 |
| LnGrp Delay(d), s/veh | 32.3 | 19.8 | 8.7 | 29.7 | 19.7 | 15.8 | 31.0 | 20.1 | 20.1 | 32.1 | 23.0 | 25.2 |
| LnGrp LOS | C | B | A | C | B | B | C | C | C | C | C | C |
| Approach Vol, veh/h | 1167 | | | 978 | | | 448 | | | 621 | | |
| Approach Delay, s/veh | 18.6 | | | 19.7 | | | 25.2 | | | 26.2 | | |
| Approach LOS | B | | | B | | | C | | | C | | |

Intersection Summary

| | |
|---------------------|------|
| HCM 2010 Ctrl Delay | 21.3 |
| HCM 2010 LOS | C |

Notes

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Existing Plus Project AM
11/11/2015

| Intersection | | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| Int Delay, s/veh | 3.7 | | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | |
| Traffic Vol, veh/h | 0 | 0 | 1 | 141 | 0 | 0 | 1 | 3 | 582 | 0 | 3 | 0 | |
| Future Vol, veh/h | 0 | 0 | 1 | 141 | 0 | 0 | 1 | 3 | 582 | 0 | 3 | 0 | |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free | |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None | |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - | |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - | |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - | |
| Peak Hour Factor | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | 61 | |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Mvmt Flow | 0 | 0 | 2 | 231 | 0 | 0 | 2 | 5 | 954 | 0 | 5 | 0 | |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 490 | 967 | 5 | 491 | 490 | 482 | 5 | 0 | 0 | 959 | 0 | 0 |
| Stage 1 | 5 | 5 | - | 485 | 485 | - | - | - | - | - | - | - |
| Stage 2 | 485 | 962 | - | 6 | 5 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 489 | 254 | 1078 | 488 | 479 | 584 | 1616 | - | - | 717 | - | - |
| Stage 1 | 1017 | 892 | - | 563 | 552 | - | - | - | - | - | - | - |
| Stage 2 | 563 | 334 | - | 1016 | 892 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 488 | 253 | 1078 | 486 | 478 | 584 | 1616 | - | - | 717 | - | - |
| Mov Cap-2 Maneuver | 488 | 253 | - | 486 | 478 | - | - | - | - | - | - | - |
| Stage 1 | 1014 | 892 | - | 561 | 550 | - | - | - | - | - | - | - |
| Stage 2 | 561 | 333 | - | 1014 | 892 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|------|----|----|
| HCM Control Delay, s | 8.3 | 18.9 | 0 | 0 |
| HCM LOS | A | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-----|-----|-----|
| Capacity (veh/h) | 1616 | - | - | 1078 | 486 | 717 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.002 | 0.476 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.3 | 18.9 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | C | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 2.5 | 0 | - | - |

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Existing Plus Project AM
11/11/2015

| Intersection | | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| Int Delay, s/veh | 4.3 | | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR | |
| Traffic Vol, veh/h | 31 | 11 | 41 | 34 | 4 | 0 | 100 | 564 | 84 | 0 | 135 | 8 | |
| Future Vol, veh/h | 31 | 11 | 41 | 34 | 4 | 0 | 100 | 564 | 84 | 0 | 135 | 8 | |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free | |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None | |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - | |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - | |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - | |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| Mvmt Flow | 41 | 15 | 55 | 45 | 5 | 0 | 133 | 752 | 112 | 0 | 180 | 11 | |


| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|------|------|--------|------|------|--------|---|---|--------|---|---|
| Conflicting Flow All | 830 | 1316 | 95 | 1172 | 1266 | 432 | 191 | 0 | 0 | 864 | 0 | 0 |
| Stage 1 | 185 | 185 | - | 1075 | 1075 | - | - | - | - | - | - | - |
| Stage 2 | 645 | 1131 | - | 97 | 191 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 263 | 156 | 943 | 148 | 168 | 572 | 1380 | - | - | 774 | - | - |
| Stage 1 | 799 | 746 | - | 234 | 294 | - | - | - | - | - | - | - |
| Stage 2 | 427 | 277 | - | 899 | 741 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 237 | 141 | 943 | 119 | 152 | 572 | 1380 | - | - | 774 | - | - |
| Mov Cap-2 Maneuver | 237 | 141 | - | 119 | 152 | - | - | - | - | - | - | - |
| Stage 1 | 722 | 746 | - | 211 | 266 | - | - | - | - | - | - | - |
| Stage 2 | 378 | 250 | - | 830 | 741 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|----|-----|----|
| HCM Control Delay, s | 18.1 | 54 | 1.1 | 0 |
| HCM LOS | C | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1380 | - | - | 237 | 428 | 122 | 774 | - |
| HCM Lane V/C Ratio | 0.097 | - | - | 0.174 | 0.162 | 0.415 | - | - |
| HCM Control Delay (s) | 7.9 | - | - | 23.4 | 15 | 54 | 0 | - |
| HCM Lane LOS | A | - | - | C | C | F | A | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.6 | 0.6 | 1.8 | 0 | - |

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Existing Plus Project AM
11/11/2015




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 393 | 785 | 359 | 30 | 737 | 288 | 295 | 524 | 157 | 173 | 195 |
| v/c Ratio | 1.06 | 0.55 | 0.41 | 0.14 | 0.71 | 0.42 | 0.55 | 0.59 | 0.56 | 0.53 | 0.44 |
| Control Delay | 101.6 | 19.5 | 3.8 | 39.8 | 27.5 | 4.8 | 35.1 | 27.7 | 45.8 | 36.5 | 7.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 101.6 | 19.5 | 3.8 | 39.8 | 27.5 | 4.8 | 35.1 | 27.7 | 45.8 | 36.5 | 7.5 |
| Queue Length 50th (ft) | -110 | 125 | 0 | 7 | 157 | 0 | 67 | 112 | 37 | 76 | 0 |
| Queue Length 95th (ft) | #207 | 216 | 34 | 20 | 217 | 35 | 108 | 153 | #74 | 132 | 32 |
| Internal Link Dist (ft) | | 3280 | | | 1790 | | | 877 | | 877 | |
| Turn Bay Length (ft) | 550 | | 490 | 460 | | 390 | 160 | | 130 | | |
| Base Capacity (vph) | 370 | 1566 | 925 | 209 | 1372 | 814 | 694 | 2219 | 278 | 954 | 896 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.06 | 0.50 | 0.39 | 0.14 | 0.54 | 0.35 | 0.43 | 0.24 | 0.56 | 0.18 | 0.22 |

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Existing Plus Project AM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (veh/h) | 318 | 636 | 291 | 24 | 597 | 233 | 239 | 394 | 31 | 127 | 140 | 158 |
| Future Volume (veh/h) | 318 | 636 | 291 | 24 | 597 | 233 | 239 | 394 | 31 | 127 | 140 | 158 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 393 | 785 | 359 | 30 | 737 | 288 | 295 | 486 | 38 | 157 | 173 | 195 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 357 | 1058 | 506 | 202 | 995 | 476 | 399 | 968 | 75 | 235 | 453 | 381 |
| Arrive On Green | 0.10 | 0.32 | 0.32 | 0.06 | 0.30 | 0.30 | 0.12 | 0.29 | 0.29 | 0.07 | 0.24 | 0.24 |
| Sat Flow, veh/h | 3442 | 3282 | 1569 | 3442 | 3282 | 1568 | 3442 | 3324 | 259 | 3442 | 1863 | 1564 |
| Grp Volume(v), veh/h | 393 | 785 | 359 | 30 | 737 | 288 | 295 | 258 | 266 | 157 | 173 | 195 |
| Grp Sat Flow(s), veh/h/ln | 1721 | 1641 | 1569 | 1721 | 1641 | 1568 | 1721 | 1770 | 1814 | 1721 | 1863 | 1564 |
| Q Serve(g_s), s | 8.0 | 16.4 | 9.9 | 0.6 | 15.6 | 12.1 | 6.4 | 9.3 | 9.4 | 3.4 | 6.0 | 8.3 |
| Cycle Q Clear(g_c), s | 8.0 | 16.4 | 9.9 | 0.6 | 15.6 | 12.1 | 6.4 | 9.3 | 9.4 | 3.4 | 6.0 | 8.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.14 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 357 | 1058 | 506 | 202 | 995 | 476 | 399 | 515 | 528 | 235 | 453 | 381 |
| V/C Ratio(X) | 1.10 | 0.74 | 0.71 | 0.15 | 0.74 | 0.61 | 0.74 | 0.50 | 0.50 | 0.67 | 0.38 | 0.51 |
| Avail Cap(c_a), veh/h | 357 | 1490 | 712 | 202 | 1320 | 630 | 670 | 1079 | 1106 | 268 | 918 | 771 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.5 | 23.3 | 9.3 | 34.5 | 24.1 | 22.9 | 32.9 | 22.7 | 22.7 | 35.1 | 24.3 | 25.2 |
| Incr Delay (d2), s/veh | 77.4 | 1.2 | 1.9 | 0.3 | 1.6 | 1.2 | 2.7 | 0.8 | 0.7 | 5.2 | 0.5 | 1.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 7.6 | 7.6 | 5.4 | 0.3 | 7.3 | 5.3 | 3.2 | 4.6 | 4.8 | 1.8 | 3.1 | 3.7 |
| LnGrp Delay(d), s/veh | 111.9 | 24.5 | 11.2 | 34.8 | 25.7 | 24.2 | 35.6 | 23.4 | 23.4 | 40.3 | 24.8 | 26.3 |
| LnGrp LOS | F | C | B | C | C | C | D | C | C | D | C | C |
| Approach Vol, veh/h | | 1537 | | | 1055 | | | 819 | | 525 | | |
| Approach Delay, s/veh | | 43.8 | | | 25.5 | | | 27.8 | | 30.0 | | |
| Approach LOS | | D | | | C | | | C | | C | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.3 | 26.4 | 10.5 | 30.9 | 12.9 | 22.8 | 12.0 | 29.4 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.0 | 6.0 | * 6 | 4.0 | 4.0 | 4.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | 6.0 | 47.0 | 4.0 | * 35 | 15.0 | 38.0 | 8.0 | 31.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.4 | 11.4 | 2.6 | 18.4 | 8.4 | 10.3 | 10.0 | 17.6 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.5 | 0.8 | 5.7 | 0.6 | 5.3 | 0.0 | 4.7 | | | | |

Intersection Summary

- HCM 2010 Ctrl Delay 33.7
- HCM 2010 LOS C

Notes

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Existing Plus Project PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 65.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 0 | 5 | 520 | 1 | 0 | 6 | 6 | 220 | 0 | 4 | 0 |
| Future Vol, veh/h | 0 | 0 | 5 | 520 | 1 | 0 | 6 | 6 | 220 | 0 | 4 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 8 | 825 | 2 | 0 | 10 | 10 | 349 | 0 | 6 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 210 | 384 | 6 | 213 | 209 | 184 | 6 | 0 | 0 | 359 | 0 | 0 |
| Stage 1 | 6 | 6 | - | 203 | 203 | - | - | - | - | - | - | - |
| Stage 2 | 204 | 378 | - | 10 | 6 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 747 | 550 | 1077 | ~ 744 | 688 | 858 | 1615 | - | - | 1200 | - | - |
| Stage 1 | 1016 | 891 | - | ~ 799 | 733 | - | - | - | - | - | - | - |
| Stage 2 | 798 | 615 | - | 1011 | 891 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 741 | 546 | 1077 | ~ 734 | 682 | 858 | 1615 | - | - | 1200 | - | - |
| Mov Cap-2 Maneuver | 741 | 546 | - | ~ 734 | 682 | - | - | - | - | - | - | - |
| Stage 1 | 1008 | 891 | - | ~ 793 | 727 | - | - | - | - | - | - | - |
| Stage 2 | 790 | 610 | - | 1004 | 891 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|------|-----|----|
| HCM Control Delay, s | 8.4 | 95.8 | 0.2 | 0 |
| HCM LOS | A | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1615 | - | - | 1077 | 734 | 1200 | - | - |
| HCM Lane V/C Ratio | 0.006 | - | - | 0.007 | 1.127 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.4 | 95.8 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | F | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 24.4 | 0 | - | - |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Existing Plus Project PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 15 | 6 | 28 | 77 | 14 | 2 | 87 | 214 | 33 | 1 | 507 | 29 |
| Future Vol, veh/h | 15 | 6 | 28 | 77 | 14 | 2 | 87 | 214 | 33 | 1 | 507 | 29 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 20 | 8 | 37 | 103 | 19 | 3 | 116 | 285 | 44 | 1 | 676 | 39 |


| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|------|------|--------|------|------|--------|---|---|--------|---|---|
| Conflicting Flow All | 1082 | 1259 | 357 | 884 | 1256 | 165 | 715 | 0 | 0 | 329 | 0 | 0 |
| Stage 1 | 698 | 698 | - | 539 | 539 | - | - | - | - | - | - | - |
| Stage 2 | 384 | 561 | - | 345 | 717 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 172 | 169 | 639 | 240 | 170 | 850 | 881 | - | - | 1227 | - | - |
| Stage 1 | 397 | 440 | - | 494 | 520 | - | - | - | - | - | - | - |
| Stage 2 | 611 | 508 | - | 644 | 432 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 139 | 147 | 639 | 195 | 147 | 850 | 881 | - | - | 1227 | - | - |
| Mov Cap-2 Maneuver | 139 | 147 | - | 195 | 147 | - | - | - | - | - | - | - |
| Stage 1 | 345 | 440 | - | 429 | 452 | - | - | - | - | - | - | - |
| Stage 2 | 507 | 441 | - | 595 | 432 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|----|
| HCM Control Delay, s | 21.3 | 54.4 | 2.5 | 0 |
| HCM LOS | C | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|
| Capacity (veh/h) | 881 | - | - | 139 | 402 | 189 | 1227 | - |
| HCM Lane V/C Ratio | 0.132 | - | - | 0.144 | 0.113 | 0.656 | 0.001 | - |
| HCM Control Delay (s) | 9.7 | - | - | 35.2 | 15.1 | 54.4 | 7.9 | - |
| HCM Lane LOS | A | - | - | E | C | F | A | - |
| HCM 95th %tile Q(veh) | 0.5 | - | - | 0.5 | 0.4 | 3.9 | 0 | - |

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Existing Plus Project PM
11/11/2015




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR | |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|--|
| Lane Group Flow (vph) | 222 | 722 | 293 | 46 | 802 | 180 | 211 | 306 | 268 | 370 | 391 | |
| v/c Ratio | 0.79 | 0.60 | 0.39 | 0.20 | 0.79 | 0.30 | 0.52 | 0.27 | 0.96 | 0.70 | 0.66 | |
| Control Delay | 64.4 | 27.7 | 4.8 | 46.0 | 35.2 | 5.6 | 44.2 | 20.9 | 88.7 | 36.2 | 18.1 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 64.4 | 27.7 | 4.8 | 46.0 | 35.2 | 5.6 | 44.2 | 20.9 | 88.7 | 36.2 | 18.1 | |
| Queue Length 50th (ft) | 65 | 193 | 0 | 12 | 212 | 0 | 59 | 62 | -81 | 190 | 85 | |
| Queue Length 95th (ft) | #158 | 286 | 58 | 35 | 340 | 49 | 109 | 97 | #198 | 298 | 190 | |
| Internal Link Dist (ft) | 3280 | | | 1790 | | | 877 | | | 877 | | |
| Turn Bay Length (ft) | 550 | | 490 | 460 | | 390 | 160 | | 130 | | 130 | |
| Base Capacity (vph) | 280 | 1361 | 812 | 232 | 1246 | 698 | 481 | 1865 | 280 | 892 | 855 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.79 | 0.53 | 0.36 | 0.20 | 0.64 | 0.26 | 0.44 | 0.16 | 0.96 | 0.41 | 0.46 | |

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Existing Plus Project PM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (veh/h) | 213 | 693 | 281 | 44 | 770 | 173 | 203 | 251 | 43 | 257 | 355 | 375 |
| Future Volume (veh/h) | 213 | 693 | 281 | 44 | 770 | 173 | 203 | 251 | 43 | 257 | 355 | 375 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 222 | 722 | 293 | 46 | 802 | 180 | 211 | 261 | 45 | 268 | 370 | 391 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 286 | 962 | 459 | 268 | 1004 | 480 | 297 | 969 | 165 | 286 | 591 | 498 |
| Arrive On Green | 0.08 | 0.29 | 0.29 | 0.08 | 0.31 | 0.31 | 0.09 | 0.32 | 0.32 | 0.08 | 0.32 | 0.32 |
| Sat Flow, veh/h | 3442 | 3282 | 1567 | 3442 | 3282 | 1568 | 3442 | 3022 | 514 | 3442 | 1863 | 1568 |
| Grp Volume(v), veh/h | 222 | 722 | 293 | 46 | 802 | 180 | 211 | 151 | 155 | 268 | 370 | 391 |
| Grp Sat Flow(s), veh/h/ln | 1721 | 1641 | 1567 | 1721 | 1641 | 1568 | 1721 | 1770 | 1766 | 1721 | 1863 | 1568 |
| Q Serve(g_s), s | 5.3 | 16.8 | 9.9 | 1.1 | 18.9 | 7.6 | 5.0 | 5.4 | 5.5 | 6.5 | 14.3 | 19.1 |
| Cycle Q Clear(g_c), s | 5.3 | 16.8 | 9.9 | 1.1 | 18.9 | 7.6 | 5.0 | 5.4 | 5.5 | 6.5 | 14.3 | 19.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.29 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 286 | 962 | 459 | 268 | 1004 | 480 | 297 | 568 | 567 | 286 | 591 | 498 |
| V/C Ratio(X) | 0.78 | 0.75 | 0.64 | 0.17 | 0.80 | 0.38 | 0.71 | 0.27 | 0.27 | 0.94 | 0.63 | 0.79 |
| Avail Cap(c_a), veh/h | 286 | 1381 | 660 | 268 | 1264 | 604 | 490 | 965 | 963 | 286 | 905 | 762 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 37.9 | 27.0 | 13.4 | 36.3 | 26.9 | 23.0 | 37.5 | 21.3 | 21.3 | 38.5 | 24.5 | 26.2 |
| Incr Delay (d2), s/veh | 12.7 | 1.4 | 1.5 | 0.3 | 2.9 | 0.5 | 3.1 | 0.2 | 0.3 | 37.1 | 1.1 | 3.0 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 3.0 | 7.8 | 4.9 | 0.5 | 9.0 | 3.3 | 2.5 | 2.6 | 2.7 | 4.6 | 7.5 | 8.6 |
| LnGrp Delay(d), s/veh | 50.6 | 28.4 | 14.9 | 36.6 | 29.8 | 23.4 | 40.7 | 21.5 | 21.6 | 75.6 | 25.6 | 29.2 |
| LnGrp LOS | D | C | B | D | C | C | D | C | C | E | C | C |
| Approach Vol, veh/h | 1237 | | | 1028 | | | 517 | | | 1029 | | |
| Approach Delay, s/veh | 29.2 | | | 29.0 | | | 29.4 | | | 40.0 | | |
| Approach LOS | C | | | C | | | C | | | D | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 11.0 | 31.1 | 12.1 | 30.2 | 11.3 | 30.8 | 11.0 | 31.3 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.0 | 5.5 | * 5.5 | 4.0 | 4.0 | 4.0 | 5.5 | | | | |
| Max Green Setting (Gmax), s | 7.0 | 46.0 | 4.0 | * 36 | 12.0 | 41.0 | 7.0 | 32.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.5 | 7.5 | 3.1 | 18.8 | 7.0 | 21.1 | 7.3 | 20.9 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.5 | 0.6 | 5.0 | 0.3 | 5.7 | 0.0 | 4.3 | | | | |

Intersection Summary

- HCM 2010 Ctrl Delay 32.1
- HCM 2010 LOS C

Notes

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Near Term AM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 0 | 1 | 59 | 0 | 0 | 1 | 24 | 221 | 0 | 30 | 0 |
| Future Vol, veh/h | 0 | 0 | 1 | 59 | 0 | 0 | 1 | 24 | 221 | 0 | 30 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 1 | 64 | 0 | 0 | 1 | 26 | 240 | 0 | 33 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 181 | 301 | 33 | 181 | 181 | 146 | 33 | 0 | 0 | 266 | 0 | 0 |
| Stage 1 | 33 | 33 | - | 148 | 148 | - | - | - | - | - | - | - |
| Stage 2 | 148 | 268 | - | 33 | 33 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 781 | 612 | 1041 | 781 | 713 | 901 | 1579 | - | - | 1298 | - | - |
| Stage 1 | 983 | 868 | - | 855 | 775 | - | - | - | - | - | - | - |
| Stage 2 | 855 | 687 | - | 983 | 868 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 780 | 611 | 1041 | 780 | 712 | 901 | 1579 | - | - | 1298 | - | - |
| Mov Cap-2 Maneuver | 780 | 611 | - | 780 | 712 | - | - | - | - | - | - | - |
| Stage 1 | 982 | 868 | - | 854 | 774 | - | - | - | - | - | - | - |
| Stage 2 | 854 | 686 | - | 982 | 868 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|----|----|----|
| HCM Control Delay, s | 8.5 | 10 | 0 | 0 |
| HCM LOS | A | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1579 | - | - | 1041 | 780 | 1298 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.001 | 0.082 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.5 | 10 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.3 | 0 | - | - |

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Near Term AM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 14 | 13 | 46 | 47 | 5 | 0 | 107 | 241 | 125 | 0 | 83 | 5 |
| Future Vol, veh/h | 14 | 13 | 46 | 47 | 5 | 0 | 107 | 241 | 125 | 0 | 83 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 15 | 14 | 50 | 51 | 5 | 0 | 116 | 262 | 136 | 0 | 90 | 5 |


| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|------|------|--------|------|------|--------|---|---|--------|---|---|
| Conflicting Flow All | 459 | 723 | 48 | 615 | 659 | 199 | 96 | 0 | 0 | 398 | 0 | 0 |
| Stage 1 | 93 | 93 | - | 563 | 563 | - | - | - | - | - | - | - |
| Stage 2 | 366 | 630 | - | 52 | 96 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 485 | 351 | 1011 | 375 | 382 | 809 | 1496 | - | - | 1157 | - | - |
| Stage 1 | 904 | 817 | - | 478 | 507 | - | - | - | - | - | - | - |
| Stage 2 | 626 | 473 | - | 954 | 815 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 451 | 324 | 1011 | 324 | 352 | 809 | 1496 | - | - | 1157 | - | - |
| Mov Cap-2 Maneuver | 451 | 324 | - | 324 | 352 | - | - | - | - | - | - | - |
| Stage 1 | 834 | 817 | - | 441 | 468 | - | - | - | - | - | - | - |
| Stage 2 | 571 | 436 | - | 891 | 815 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|----|
| HCM Control Delay, s | 11.3 | 18.3 | 1.7 | 0 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|------|-----|
| Capacity (veh/h) | 1496 | - | - | 451 | 689 | 326 | 1157 | - |
| HCM Lane V/C Ratio | 0.078 | - | - | 0.034 | 0.093 | 0.173 | - | - |
| HCM Control Delay (s) | 7.6 | - | - | 13.3 | 10.8 | 18.3 | 0 | - |
| HCM Lane LOS | A | - | - | B | B | C | A | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.1 | 0.3 | 0.6 | 0 | - |

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Near Term AM
11/11/2015




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR | |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|--|
| Lane Group Flow (vph) | 236 | 734 | 372 | 41 | 679 | 176 | 297 | 363 | 129 | 141 | 155 | |
| v/c Ratio | 0.48 | 0.56 | 0.44 | 0.12 | 0.68 | 0.30 | 0.54 | 0.48 | 0.38 | 0.50 | 0.39 | |
| Control Delay | 36.0 | 22.4 | 4.3 | 35.8 | 28.6 | 5.4 | 35.6 | 28.5 | 39.7 | 38.8 | 5.9 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 36.0 | 22.4 | 4.3 | 35.8 | 28.6 | 5.4 | 35.6 | 28.5 | 39.7 | 38.8 | 5.9 | |
| Queue Length 50th (ft) | 55 | 158 | 0 | 9 | 149 | 0 | 69 | 78 | 30 | 64 | 0 | |
| Queue Length 95th (ft) | 104 | 250 | 58 | 27 | 249 | 46 | 125 | 131 | 68 | 135 | 32 | |
| Internal Link Dist (ft) | 3280 | | | 1790 | | | 877 | | | 877 | | |
| Turn Bay Length (ft) | 550 | 490 | 460 | 390 | | | 160 | 130 | | | | |
| Base Capacity (vph) | 823 | 1880 | 1043 | 333 | 1268 | 704 | 731 | 2174 | 365 | 968 | 897 | |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduced v/c Ratio | 0.29 | 0.39 | 0.36 | 0.12 | 0.54 | 0.25 | 0.41 | 0.17 | 0.35 | 0.15 | 0.17 | |

Intersection Summary

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Near Term AM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (veh/h) | 217 | 675 | 342 | 38 | 625 | 162 | 273 | 293 | 41 | 119 | 130 | 143 |
| Future Volume (veh/h) | 217 | 675 | 342 | 38 | 625 | 162 | 273 | 293 | 41 | 119 | 130 | 143 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 236 | 734 | 372 | 41 | 679 | 176 | 297 | 318 | 45 | 129 | 141 | 155 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 356 | 1103 | 527 | 134 | 991 | 473 | 422 | 811 | 114 | 214 | 372 | 311 |
| Arrive On Green | 0.10 | 0.34 | 0.34 | 0.04 | 0.30 | 0.30 | 0.12 | 0.26 | 0.26 | 0.06 | 0.20 | 0.20 |
| Sat Flow, veh/h | 3442 | 3282 | 1569 | 3442 | 3282 | 1568 | 3442 | 3113 | 436 | 3442 | 1863 | 1560 |
| Grp Volume(v), veh/h | 236 | 734 | 372 | 41 | 679 | 176 | 297 | 179 | 184 | 129 | 141 | 155 |
| Grp Sat Flow(s), veh/h/ln | 1721 | 1641 | 1569 | 1721 | 1641 | 1568 | 1721 | 1770 | 1780 | 1721 | 1863 | 1560 |
| Q Serve(g_s), s | 4.4 | 12.6 | 8.0 | 0.8 | 12.0 | 5.8 | 5.5 | 5.5 | 5.6 | 2.4 | 4.3 | 5.8 |
| Cycle Q Clear(g_c), s | 4.4 | 12.6 | 8.0 | 0.8 | 12.0 | 5.8 | 5.5 | 5.5 | 5.6 | 2.4 | 4.3 | 5.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.25 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 356 | 1103 | 527 | 134 | 991 | 473 | 422 | 461 | 463 | 214 | 372 | 311 |
| V/C Ratio(X) | 0.66 | 0.67 | 0.71 | 0.31 | 0.69 | 0.37 | 0.70 | 0.39 | 0.40 | 0.60 | 0.38 | 0.50 |
| Avail Cap(c_a), veh/h | 937 | 2135 | 1021 | 208 | 1440 | 688 | 833 | 1258 | 1265 | 416 | 1099 | 920 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 28.5 | 18.8 | 6.6 | 30.9 | 20.3 | 18.1 | 27.8 | 20.1 | 20.2 | 30.2 | 22.9 | 23.5 |
| Incr Delay (d2), s/veh | 2.1 | 0.7 | 1.7 | 1.3 | 0.8 | 0.5 | 2.1 | 0.5 | 0.5 | 2.7 | 0.6 | 1.2 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 2.2 | 5.8 | 4.6 | 0.4 | 5.5 | 2.6 | 2.7 | 2.8 | 2.8 | 1.2 | 2.3 | 2.6 |
| LnGrp Delay(d), s/veh | 30.7 | 19.5 | 8.3 | 32.2 | 21.2 | 18.6 | 30.0 | 20.7 | 20.7 | 33.0 | 23.5 | 24.7 |
| LnGrp LOS | C | B | A | C | C | B | C | C | C | C | C | C |
| Approach Vol, veh/h | 1342 | | | 896 | | | 660 | | | 425 | | |
| Approach Delay, s/veh | 18.3 | | | 21.2 | | | 24.9 | | | 26.8 | | |
| Approach LOS | B | | | C | | | C | | | C | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 8.1 | 21.2 | 8.6 | 28.2 | 12.1 | 17.2 | 10.8 | 26.0 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.0 | 6.0 | * 6 | 4.0 | 4.0 | 4.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | 8.0 | 47.0 | 4.0 | * 43 | 16.0 | 39.0 | 18.0 | 29.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 4.4 | 7.6 | 2.8 | 14.6 | 7.5 | 7.8 | 6.4 | 14.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 3.9 | 0.6 | 6.4 | 0.7 | 3.8 | 0.6 | 4.3 | | | | |

Intersection Summary

| | |
|---------------------|------|
| HCM 2010 Ctrl Delay | 21.5 |
| HCM 2010 LOS | C |
| Notes | |

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Near Term PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 7.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 0 | 5 | 251 | 1 | 0 | 6 | 55 | 79 | 0 | 31 | 0 |
| Future Vol, veh/h | 0 | 0 | 5 | 251 | 1 | 0 | 6 | 55 | 79 | 0 | 31 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 5 | 273 | 1 | 0 | 7 | 60 | 86 | 0 | 34 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 150 | 193 | 34 | 152 | 150 | 103 | 34 | 0 | 0 | 146 | 0 | 0 |
| Stage 1 | 34 | 34 | - | 116 | 116 | - | - | - | - | - | - | - |
| Stage 2 | 116 | 159 | - | 36 | 34 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 818 | 702 | 1039 | 815 | 742 | 952 | 1578 | - | - | 1436 | - | - |
| Stage 1 | 982 | 867 | - | 889 | 800 | - | - | - | - | - | - | - |
| Stage 2 | 889 | 766 | - | 980 | 867 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 814 | 698 | 1039 | 808 | 738 | 952 | 1578 | - | - | 1436 | - | - |
| Mov Cap-2 Maneuver | 814 | 698 | - | 808 | 738 | - | - | - | - | - | - | - |
| Stage 1 | 977 | 867 | - | 885 | 796 | - | - | - | - | - | - | - |
| Stage 2 | 883 | 762 | - | 975 | 867 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|------|-----|----|
| HCM Control Delay, s | 8.5 | 11.7 | 0.3 | 0 |
| HCM LOS | A | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1578 | - | - | 1039 | 808 | 1436 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | - | 0.005 | 0.339 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.5 | 11.7 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 1.5 | 0 | - | - |

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Near Term PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 9 | 6 | 36 | 77 | 14 | 2 | 95 | 128 | 33 | 1 | 277 | 16 |
| Future Vol, veh/h | 9 | 6 | 36 | 77 | 14 | 2 | 95 | 128 | 33 | 1 | 277 | 16 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 10 | 7 | 39 | 84 | 15 | 2 | 103 | 139 | 36 | 1 | 301 | 17 |


| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|------|------|--------|------|------|--------|---|---|--------|---|---|
| Conflicting Flow All | 596 | 694 | 159 | 520 | 685 | 88 | 318 | 0 | 0 | 175 | 0 | 0 |
| Stage 1 | 312 | 312 | - | 364 | 364 | - | - | - | - | - | - | - |
| Stage 2 | 284 | 382 | - | 156 | 321 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 387 | 365 | 858 | 439 | 369 | 953 | 1239 | - | - | 1399 | - | - |
| Stage 1 | 673 | 656 | - | 627 | 622 | - | - | - | - | - | - | - |
| Stage 2 | 699 | 611 | - | 831 | 650 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 349 | 334 | 858 | 386 | 338 | 953 | 1239 | - | - | 1399 | - | - |
| Mov Cap-2 Maneuver | 349 | 334 | - | 386 | 338 | - | - | - | - | - | - | - |
| Stage 1 | 617 | 656 | - | 575 | 570 | - | - | - | - | - | - | - |
| Stage 2 | 622 | 560 | - | 785 | 650 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|----|----|
| HCM Control Delay, s | 11.4 | 17.7 | 3 | 0 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|
| Capacity (veh/h) | 1239 | - | - | 349 | 701 | 383 | 1399 | - |
| HCM Lane V/C Ratio | 0.083 | - | - | 0.028 | 0.065 | 0.264 | 0.001 | - |
| HCM Control Delay (s) | 8.2 | - | - | 15.6 | 10.5 | 17.7 | 7.6 | - |
| HCM Lane LOS | A | - | - | C | B | C | A | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.1 | 0.2 | 1 | 0 | - |

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Near Term PM
11/11/2015




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 191 | 759 | 344 | 61 | 852 | 158 | 261 | 286 | 207 | 289 | 304 |
| v/c Ratio | 0.49 | 0.63 | 0.44 | 0.17 | 0.79 | 0.26 | 0.57 | 0.34 | 0.50 | 0.68 | 0.52 |
| Control Delay | 43.7 | 28.7 | 4.6 | 42.8 | 35.6 | 5.8 | 43.4 | 26.7 | 43.1 | 41.2 | 7.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 43.7 | 28.7 | 4.6 | 42.8 | 35.6 | 5.8 | 43.4 | 26.7 | 43.1 | 41.2 | 7.5 |
| Queue Length 50th (ft) | 53 | 202 | 0 | 15 | 228 | 0 | 72 | 63 | 57 | 151 | 4 |
| Queue Length 95th (ft) | 98 | 289 | 59 | 42 | #414 | 48 | 126 | 106 | 103 | 250 | 68 |
| Internal Link Dist (ft) | | 3280 | | 1790 | | | 877 | | 877 | | |
| Turn Bay Length (ft) | 550 | | 490 | 460 | | 390 | 160 | | 130 | | 130 |
| Base Capacity (vph) | 500 | 1409 | 859 | 350 | 1085 | 616 | 577 | 1740 | 577 | 939 | 929 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.38 | 0.54 | 0.40 | 0.17 | 0.79 | 0.26 | 0.45 | 0.16 | 0.36 | 0.31 | 0.33 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Near Term PM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (veh/h) | 183 | 729 | 330 | 59 | 818 | 152 | 251 | 222 | 53 | 199 | 277 | 292 |
| Future Volume (veh/h) | 183 | 729 | 330 | 59 | 818 | 152 | 251 | 222 | 53 | 199 | 277 | 292 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 191 | 759 | 344 | 61 | 852 | 158 | 261 | 231 | 55 | 207 | 289 | 304 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 283 | 1038 | 496 | 238 | 1058 | 506 | 362 | 805 | 188 | 304 | 496 | 417 |
| Arrive On Green | 0.08 | 0.32 | 0.32 | 0.07 | 0.32 | 0.32 | 0.11 | 0.28 | 0.28 | 0.09 | 0.27 | 0.27 |
| Sat Flow, veh/h | 3442 | 3282 | 1568 | 3442 | 3282 | 1569 | 3442 | 2844 | 663 | 3442 | 1863 | 1565 |
| Grp Volume(v), veh/h | 191 | 759 | 344 | 61 | 852 | 158 | 261 | 142 | 144 | 207 | 289 | 304 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1641 | 1568 | 1721 | 1641 | 1569 | 1721 | 1770 | 1737 | 1721 | 1863 | 1565 |
| Q Serve(g_s), s | 4.2 | 16.1 | 10.0 | 1.3 | 18.6 | 5.9 | 5.7 | 4.9 | 5.1 | 4.6 | 10.5 | 13.8 |
| Cycle Q Clear(g_c), s | 4.2 | 16.1 | 10.0 | 1.3 | 18.6 | 5.9 | 5.7 | 4.9 | 5.1 | 4.6 | 10.5 | 13.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.38 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 283 | 1038 | 496 | 238 | 1058 | 506 | 362 | 501 | 492 | 304 | 496 | 417 |
| V/C Ratio(X) | 0.68 | 0.73 | 0.69 | 0.26 | 0.81 | 0.31 | 0.72 | 0.28 | 0.29 | 0.68 | 0.58 | 0.73 |
| Avail Cap(c_a), veh/h | 573 | 1576 | 753 | 238 | 1240 | 592 | 661 | 1020 | 1001 | 661 | 1073 | 902 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.8 | 23.8 | 10.4 | 34.4 | 24.2 | 19.9 | 33.8 | 21.8 | 21.9 | 34.5 | 24.9 | 26.1 |
| Incr Delay (d2), s/veh | 2.8 | 1.0 | 1.8 | 0.6 | 3.4 | 0.3 | 2.7 | 0.3 | 0.3 | 2.7 | 1.1 | 2.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.1 | 7.4 | 5.2 | 0.6 | 8.9 | 2.6 | 2.9 | 2.4 | 2.4 | 2.3 | 5.5 | 6.2 |
| LnGrp Delay(d),s/veh | 37.7 | 24.8 | 12.2 | 35.0 | 27.7 | 20.3 | 36.5 | 22.1 | 22.2 | 37.2 | 26.0 | 28.6 |
| LnGrp LOS | D | C | B | D | C | C | D | C | C | D | C | C |
| Approach Vol, veh/h | | 1294 | | | 1071 | | | 547 | | | 800 | |
| Approach Delay, s/veh | | 23.3 | | | 27.0 | | | 29.0 | | | 29.9 | |
| Approach LOS | | C | | | C | | | C | | | C | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.9 | 26.1 | 10.9 | 30.2 | 12.2 | 24.8 | 10.4 | 30.7 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.0 | 5.5 | * 5.5 | 4.0 | 4.0 | 4.0 | 5.5 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 45.0 | 5.0 | * 38 | 15.0 | 45.0 | 13.0 | 29.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.6 | 7.1 | 3.3 | 18.1 | 7.7 | 15.8 | 6.2 | 20.6 | | | | |
| Green Ext Time (p_c), s | 0.4 | 5.1 | 1.0 | 5.8 | 0.5 | 5.0 | 0.3 | 3.9 | | | | |

Intersection Summary

HCM 2010 Ctrl Delay 26.6
HCM 2010 LOS C

Notes

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Near Term Plus Project AM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 0 | 1 | 176 | 0 | 0 | 1 | 24 | 718 | 0 | 30 | 0 |
| Future Vol, veh/h | 0 | 0 | 1 | 176 | 0 | 0 | 1 | 24 | 718 | 0 | 30 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 1 | 191 | 0 | 0 | 1 | 26 | 780 | 0 | 33 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 451 | 842 | 33 | 451 | 451 | 416 | 33 | 0 | 0 | 807 | 0 | 0 |
| Stage 1 | 33 | 33 | - | 418 | 418 | - | - | - | - | - | - | - |
| Stage 2 | 418 | 809 | - | 33 | 33 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 519 | 301 | 1041 | 519 | 504 | 637 | 1579 | - | - | 818 | - | - |
| Stage 1 | 983 | 868 | - | 612 | 591 | - | - | - | - | - | - | - |
| Stage 2 | 612 | 394 | - | 983 | 868 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 519 | 301 | 1041 | 518 | 503 | 637 | 1579 | - | - | 818 | - | - |
| Mov Cap-2 Maneuver | 519 | 301 | - | 518 | 503 | - | - | - | - | - | - | - |
| Stage 1 | 982 | 868 | - | 611 | 590 | - | - | - | - | - | - | - |
| Stage 2 | 611 | 394 | - | 982 | 868 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|----|----|----|
| HCM Control Delay, s | 8.5 | 16 | 0 | 0 |
| HCM LOS | A | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-----|-----|-----|
| Capacity (veh/h) | 1579 | - | - | 1041 | 518 | 818 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.001 | 0.369 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.5 | 16 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | C | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 1.7 | 0 | - | - |

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Near Term Plus Project AM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 4.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 39 | 13 | 46 | 47 | 5 | 0 | 107 | 713 | 125 | 0 | 194 | 11 |
| Future Vol, veh/h | 39 | 13 | 46 | 47 | 5 | 0 | 107 | 713 | 125 | 0 | 194 | 11 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 42 | 14 | 50 | 51 | 5 | 0 | 116 | 775 | 136 | 0 | 211 | 12 |


| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|------|------|--------|------|------|--------|---|---|--------|---|---|
| Conflicting Flow All | 840 | 1360 | 111 | 1189 | 1299 | 455 | 223 | 0 | 0 | 911 | 0 | 0 |
| Stage 1 | 217 | 217 | - | 1076 | 1076 | - | - | - | - | - | - | - |
| Stage 2 | 623 | 1143 | - | 113 | 223 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 258 | 147 | 921 | 143 | 160 | 552 | 1343 | - | - | 743 | - | - |
| Stage 1 | 765 | 722 | - | 234 | 294 | - | - | - | - | - | - | - |
| Stage 2 | 440 | 273 | - | 880 | 718 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 234 | 134 | 921 | 116 | 146 | 552 | 1343 | - | - | 743 | - | - |
| Mov Cap-2 Maneuver | 234 | 134 | - | 116 | 146 | - | - | - | - | - | - | - |
| Stage 1 | 699 | 722 | - | 214 | 269 | - | - | - | - | - | - | - |
| Stage 2 | 394 | 249 | - | 816 | 718 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|----|
| HCM Control Delay, s | 18.9 | 60.8 | 0.9 | 0 |
| HCM LOS | C | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn2 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1343 | - | - | 234 | 401 | 118 | 743 | - |
| HCM Lane V/C Ratio | 0.087 | - | - | 0.181 | 0.16 | 0.479 | - | - |
| HCM Control Delay (s) | 7.9 | - | - | 23.8 | 15.7 | 60.8 | 0 | - |
| HCM Lane LOS | A | - | - | C | C | F | A | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.6 | 0.6 | 2.2 | 0 | - |

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Near Term Plus Project AM
11/11/2015




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 425 | 734 | 372 | 41 | 679 | 311 | 297 | 553 | 161 | 186 | 200 |
| v/c Ratio | 0.68 | 0.56 | 0.44 | 0.11 | 0.73 | 0.50 | 0.59 | 0.67 | 0.52 | 0.56 | 0.45 |
| Control Delay | 41.3 | 25.5 | 4.5 | 37.7 | 34.6 | 9.9 | 41.9 | 34.8 | 47.7 | 41.7 | 8.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.3 | 25.5 | 4.5 | 37.7 | 34.6 | 9.9 | 41.9 | 34.8 | 47.7 | 41.7 | 8.8 |
| Queue Length 50th (ft) | 117 | 195 | 0 | 10 | 180 | 26 | 83 | 152 | 46 | 100 | 0 |
| Queue Length 95th (ft) | 188 | 273 | 61 | 28 | 277 | 107 | 137 | 213 | 87 | 177 | 58 |
| Internal Link Dist (ft) | | 3280 | | | 1790 | | | 877 | | 877 | |
| Turn Bay Length (ft) | 550 | | 490 | 460 | | 390 | 160 | | 130 | | |
| Base Capacity (vph) | 715 | 1633 | 955 | 381 | 1101 | 683 | 635 | 1902 | 317 | 840 | 809 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.59 | 0.45 | 0.39 | 0.11 | 0.62 | 0.46 | 0.47 | 0.29 | 0.51 | 0.22 | 0.25 |

Intersection Summary

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Near Term Plus Project AM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (veh/h) | 391 | 675 | 342 | 38 | 625 | 286 | 273 | 467 | 41 | 148 | 171 | 184 |
| Future Volume (veh/h) | 391 | 675 | 342 | 38 | 625 | 286 | 273 | 467 | 41 | 148 | 171 | 184 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 425 | 734 | 372 | 41 | 679 | 311 | 297 | 508 | 45 | 161 | 186 | 200 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 525 | 1000 | 478 | 340 | 901 | 430 | 393 | 953 | 84 | 237 | 456 | 383 |
| Arrive On Green | 0.15 | 0.30 | 0.30 | 0.10 | 0.27 | 0.27 | 0.11 | 0.29 | 0.29 | 0.07 | 0.24 | 0.24 |
| Sat Flow, veh/h | 3442 | 3282 | 1568 | 3442 | 3282 | 1566 | 3442 | 3287 | 290 | 3442 | 1863 | 1564 |
| Grp Volume(v), veh/h | 425 | 734 | 372 | 41 | 679 | 311 | 297 | 273 | 280 | 161 | 186 | 200 |
| Grp Sat Flow(s), veh/h/ln | 1721 | 1641 | 1568 | 1721 | 1641 | 1566 | 1721 | 1770 | 1808 | 1721 | 1863 | 1564 |
| Q Serve(g_s), s | 10.0 | 16.9 | 12.1 | 0.9 | 15.9 | 15.1 | 7.0 | 10.9 | 11.0 | 3.8 | 7.1 | 9.3 |
| Cycle Q Clear(g_c), s | 10.0 | 16.9 | 12.1 | 0.9 | 15.9 | 15.1 | 7.0 | 10.9 | 11.0 | 3.8 | 7.1 | 9.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.16 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 525 | 1000 | 478 | 340 | 901 | 430 | 393 | 513 | 524 | 237 | 456 | 383 |
| V/C Ratio(X) | 0.81 | 0.73 | 0.78 | 0.12 | 0.75 | 0.72 | 0.75 | 0.53 | 0.53 | 0.68 | 0.41 | 0.52 |
| Avail Cap(c_a), veh/h | 736 | 1677 | 801 | 340 | 1131 | 540 | 654 | 988 | 1010 | 327 | 863 | 725 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.5 | 26.2 | 11.8 | 34.6 | 27.9 | 27.6 | 36.1 | 25.1 | 25.1 | 38.3 | 26.7 | 27.5 |
| Incr Delay (d2), s/veh | 4.7 | 1.1 | 2.8 | 0.2 | 2.2 | 3.6 | 3.0 | 0.9 | 0.8 | 3.4 | 0.6 | 1.1 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 5.1 | 7.8 | 6.3 | 0.4 | 7.4 | 6.9 | 3.5 | 5.4 | 5.6 | 1.9 | 3.7 | 4.1 |
| LnGrp Delay(d), s/veh | 39.1 | 27.3 | 14.6 | 34.8 | 30.1 | 31.2 | 39.1 | 25.9 | 26.0 | 41.6 | 27.3 | 28.6 |
| LnGrp LOS | D | C | B | C | C | C | D | C | C | D | C | C |
| Approach Vol, veh/h | | 1531 | | | 1031 | | | 850 | | | | 547 |
| Approach Delay, s/veh | | 27.5 | | | 30.6 | | | 30.5 | | | | 32.0 |
| Approach LOS | | C | | | C | | | C | | | | C |

Intersection Summary

| | | | | | | | | | | | | |
|---------------------|--|--|--|--|--|--|--|--|--|--|--|------|
| HCM 2010 Ctrl Delay | | | | | | | | | | | | 29.6 |
| HCM 2010 LOS | | | | | | | | | | | | C |

Notes

Agenda Item No. 1 - Part B 349

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Near Term Plus Project PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 45.9 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 0 | 5 | 663 | 1 | 0 | 6 | 55 | 270 | 0 | 31 | 0 |
| Future Vol, veh/h | 0 | 0 | 5 | 663 | 1 | 0 | 6 | 55 | 270 | 0 | 31 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 5 | 721 | 1 | 0 | 7 | 60 | 293 | 0 | 34 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|------|---|--------|------|---|
| Conflicting Flow All | 254 | 400 | 34 | 256 | 254 | 207 | 34 | 0 | 0 | 353 | 0 | 0 |
| Stage 1 | 34 | 34 | - | 220 | 220 | - | - | - | - | - | - | - |
| Stage 2 | 220 | 366 | - | 36 | 34 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 699 | 538 | 1039 | - | 697 | 650 | 833 | 1578 | - | - | 1206 | - |
| Stage 1 | 982 | 867 | - | 782 | 721 | - | - | - | - | - | - | - |
| Stage 2 | 782 | 623 | - | 980 | 867 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 695 | 535 | 1039 | - | 690 | 646 | 833 | 1578 | - | - | 1206 | - |
| Mov Cap-2 Maneuver | 695 | 535 | - | - | 690 | 646 | - | - | - | - | - | - |
| Stage 1 | 976 | 867 | - | 777 | 717 | - | - | - | - | - | - | - |
| Stage 2 | 776 | 619 | - | 975 | 867 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|------|-----|----|
| HCM Control Delay, s | 8.5 | 71.2 | 0.1 | 0 |
| HCM LOS | A | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1578 | - | - | 1039 | 690 | 1206 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | - | 0.005 | 1.046 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.5 | 71.2 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | F | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 18.6 | 0 | - | - |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Near Term Plus Project PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.4 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 19 | 6 | 36 | 77 | 14 | 2 | 95 | 309 | 33 | 1 | 669 | 37 |
| Future Vol, veh/h | 19 | 6 | 36 | 77 | 14 | 2 | 95 | 309 | 33 | 1 | 669 | 37 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 21 | 7 | 39 | 84 | 15 | 2 | 103 | 336 | 36 | 1 | 727 | 40 |


| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|------|------|--------|------|------|--------|---|---|--------|---|---|
| Conflicting Flow All | 1131 | 1327 | 384 | 929 | 1330 | 186 | 767 | 0 | 0 | 372 | 0 | 0 |
| Stage 1 | 749 | 749 | - | 560 | 560 | - | - | - | - | - | - | - |
| Stage 2 | 382 | 578 | - | 369 | 770 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 158 | 154 | 614 | 222 | 153 | 824 | 842 | - | - | 1183 | - | - |
| Stage 1 | 370 | 417 | - | 480 | 509 | - | - | - | - | - | - | - |
| Stage 2 | 612 | 499 | - | 623 | 408 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 131 | 135 | 614 | 181 | 134 | 824 | 842 | - | - | 1183 | - | - |
| Mov Cap-2 Maneuver | 131 | 135 | - | 181 | 134 | - | - | - | - | - | - | - |
| Stage 1 | 325 | 417 | - | 421 | 447 | - | - | - | - | - | - | - |
| Stage 2 | 517 | 438 | - | 574 | 408 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|------|-----|----|
| HCM Control Delay, s | 22 | 50.4 | 2.1 | 0 |
| HCM LOS | C | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|
| Capacity (veh/h) | 842 | - | - | 131 | 407 | 175 | 1183 | - |
| HCM Lane V/C Ratio | 0.123 | - | - | 0.158 | 0.112 | 0.578 | 0.001 | - |
| HCM Control Delay (s) | 9.9 | - | - | 37.6 | 15 | 50.4 | 8 | - |
| HCM Lane LOS | A | - | - | E | C | F | A | - |
| HCM 95th %tile Q(veh) | 0.4 | - | - | 0.5 | 0.4 | 3.1 | 0 | - |

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Near Term Plus Project PM
11/11/2015




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 260 | 759 | 344 | 61 | 852 | 208 | 261 | 356 | 315 | 439 | 454 |
| v/c Ratio | 0.66 | 0.67 | 0.45 | 0.23 | 0.90 | 0.35 | 0.63 | 0.34 | 0.70 | 0.77 | 0.67 |
| Control Delay | 55.0 | 35.1 | 5.3 | 52.5 | 51.5 | 6.7 | 52.2 | 27.4 | 54.3 | 42.7 | 15.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 55.0 | 35.1 | 5.3 | 52.5 | 51.5 | 6.7 | 52.2 | 27.4 | 54.3 | 42.7 | 15.6 |
| Queue Length 50th (ft) | 87 | 244 | 0 | 19 | 294 | 0 | 87 | 94 | 104 | 268 | 87 |
| Queue Length 95th (ft) | 147 | 350 | 68 | 47 | #509 | 60 | 145 | 132 | 173 | 389 | 199 |
| Internal Link Dist (ft) | | 3280 | | | 1790 | | | 877 | | 877 | |
| Turn Bay Length (ft) | 550 | | 490 | 460 | | 390 | 160 | | 130 | | 130 |
| Base Capacity (vph) | 435 | 1240 | 797 | 267 | 944 | 592 | 502 | 1524 | 502 | 817 | 847 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.60 | 0.61 | 0.43 | 0.23 | 0.90 | 0.35 | 0.52 | 0.23 | 0.63 | 0.54 | 0.54 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Near Term Plus Project PM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (veh/h) | 250 | 729 | 330 | 59 | 818 | 200 | 251 | 289 | 53 | 302 | 421 | 436 |
| Future Volume (veh/h) | 250 | 729 | 330 | 59 | 818 | 200 | 251 | 289 | 53 | 302 | 421 | 436 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 260 | 759 | 344 | 61 | 852 | 208 | 261 | 301 | 55 | 315 | 439 | 454 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 332 | 935 | 446 | 276 | 931 | 444 | 338 | 994 | 179 | 390 | 648 | 546 |
| Arrive On Green | 0.10 | 0.28 | 0.28 | 0.08 | 0.28 | 0.28 | 0.10 | 0.33 | 0.33 | 0.11 | 0.35 | 0.35 |
| Sat Flow, veh/h | 3442 | 3282 | 1567 | 3442 | 3282 | 1567 | 3442 | 2992 | 540 | 3442 | 1863 | 1570 |
| Grp Volume(v), veh/h | 260 | 759 | 344 | 61 | 852 | 208 | 261 | 176 | 180 | 315 | 439 | 454 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1641 | 1567 | 1721 | 1641 | 1567 | 1721 | 1770 | 1762 | 1721 | 1863 | 1570 |
| Q Serve(g_s), s | 7.4 | 21.6 | 14.8 | 1.7 | 25.3 | 11.0 | 7.4 | 7.4 | 7.6 | 9.0 | 20.2 | 26.7 |
| Cycle Q Clear(g_c), s | 7.4 | 21.6 | 14.8 | 1.7 | 25.3 | 11.0 | 7.4 | 7.4 | 7.6 | 9.0 | 20.2 | 26.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.31 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 332 | 935 | 446 | 276 | 931 | 444 | 338 | 588 | 586 | 390 | 648 | 546 |
| V/C Ratio(X) | 0.78 | 0.81 | 0.77 | 0.22 | 0.92 | 0.47 | 0.77 | 0.30 | 0.31 | 0.81 | 0.68 | 0.83 |
| Avail Cap(c_a), veh/h | 445 | 1224 | 584 | 276 | 963 | 460 | 513 | 792 | 788 | 513 | 834 | 702 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 44.4 | 33.4 | 17.6 | 43.3 | 34.8 | 29.8 | 44.3 | 24.9 | 25.0 | 43.5 | 28.0 | 30.1 |
| Incr Delay (d2), s/veh | 6.4 | 3.2 | 4.6 | 0.4 | 12.8 | 0.8 | 4.0 | 0.3 | 0.3 | 7.0 | 1.5 | 6.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.8 | 10.2 | 7.4 | 0.8 | 13.1 | 4.8 | 3.7 | 3.7 | 3.7 | 4.7 | 10.6 | 12.6 |
| LnGrp Delay(d),s/veh | 50.8 | 36.7 | 22.2 | 43.7 | 47.7 | 30.5 | 48.3 | 25.2 | 25.2 | 50.5 | 29.5 | 36.8 |
| LnGrp LOS | D | D | C | D | D | C | D | C | C | D | C | D |
| Approach Vol, veh/h | | 1363 | | | 1121 | | | 617 | | 1208 | | |
| Approach Delay, s/veh | | 35.7 | | | 44.3 | | | 35.0 | | 37.7 | | |
| Approach LOS | | D | | | D | | | C | | D | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.4 | 37.4 | 13.6 | 34.2 | 13.9 | 39.0 | 13.7 | 34.0 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.0 | 5.5 | * 5.5 | 4.0 | 4.0 | 4.0 | 5.5 | | | | |
| Max Green Setting (Gmax), s | 15.0 | 45.0 | 5.0 | * 38 | 15.0 | 45.0 | 13.0 | 29.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 11.0 | 9.6 | 3.7 | 23.6 | 9.4 | 28.7 | 9.4 | 27.3 | | | | |
| Green Ext Time (p_c), s | 0.4 | 8.0 | 0.8 | 5.0 | 0.4 | 6.3 | 0.3 | 1.3 | | | | |

Intersection Summary

HCM 2010 Ctrl Delay 38.4
HCM 2010 LOS D

Notes

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Cumulative AM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 90 | 10 | 80 | 20 | 10 | 25 | 30 | 225 | 20 | 30 | 20 |
| Future Vol, veh/h | 0 | 90 | 10 | 80 | 20 | 10 | 25 | 30 | 225 | 20 | 30 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 98 | 11 | 87 | 22 | 11 | 27 | 33 | 245 | 22 | 33 | 22 |

| Major/Minor | Minor2 | | Minor1 | | | Major1 | | | Major2 | | | |
|----------------------|--------|-------|--------|-------|-------|--------|-------|---|--------|-------|---|---|
| Conflicting Flow All | 313 | 419 | 43 | 350 | 307 | 155 | 54 | 0 | 0 | 277 | 0 | 0 |
| Stage 1 | 87 | 87 | - | 209 | 209 | - | - | - | - | - | - | - |
| Stage 2 | 226 | 332 | - | 141 | 98 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 640 | 525 | 1027 | 605 | 607 | 891 | 1551 | - | - | 1286 | - | - |
| Stage 1 | 921 | 823 | - | 793 | 729 | - | - | - | - | - | - | - |
| Stage 2 | 777 | 644 | - | 862 | 814 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 596 | 505 | 1027 | 495 | 584 | 891 | 1551 | - | - | 1286 | - | - |
| Mov Cap-2 Maneuver | 596 | 505 | - | 495 | 584 | - | - | - | - | - | - | - |
| Stage 1 | 902 | 808 | - | 776 | 714 | - | - | - | - | - | - | - |
| Stage 2 | 729 | 630 | - | 736 | 799 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|-----|
| HCM Control Delay, s | 13.5 | 13.7 | 0.7 | 2.2 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WB Ln1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|--------|-------|-----|-----|
| Capacity (veh/h) | 1551 | - | - | 532 | 531 | 1286 | - | - |
| HCM Lane V/C Ratio | 0.018 | - | - | 0.204 | 0.225 | 0.017 | - | - |
| HCM Control Delay (s) | 7.4 | 0 | - | 13.5 | 13.7 | 7.8 | 0 | - |
| HCM Lane LOS | A | A | - | B | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.8 | 0.9 | 0.1 | - | - |

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Cumulative AM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 21.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 20 | 53 | 50 | 125 | 105 | 2 | 110 | 250 | 221 | 2 | 90 | 10 |
| Future Vol, veh/h | 20 | 53 | 50 | 125 | 105 | 2 | 110 | 250 | 221 | 2 | 90 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 22 | 58 | 54 | 136 | 114 | 2 | 120 | 272 | 240 | 2 | 98 | 11 |


| Major/Minor | Minor2 | | Minor1 | | | Major1 | | | Major2 | | | |
|----------------------|--------|------|--------|------|------|--------|------|---|--------|------|---|---|
| Conflicting Flow All | 540 | 859 | 54 | 713 | 744 | 256 | 109 | 0 | 0 | 512 | 0 | 0 |
| Stage 1 | 108 | 108 | - | 631 | 631 | - | - | - | - | - | - | - |
| Stage 2 | 432 | 751 | - | 82 | 113 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 425 | 292 | 1002 | 319 | 341 | 743 | 1479 | - | - | 1050 | - | - |
| Stage 1 | 886 | 805 | - | 436 | 473 | - | - | - | - | - | - | - |
| Stage 2 | 572 | 416 | - | 917 | 801 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 286 | 268 | 1002 | 236 | 313 | 743 | 1479 | - | - | 1050 | - | - |
| Mov Cap-2 Maneuver | 286 | 268 | - | 236 | 313 | - | - | - | - | - | - | - |
| Stage 1 | 814 | 803 | - | 401 | 435 | - | - | - | - | - | - | - |
| Stage 2 | 387 | 382 | - | 804 | 799 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|-----|
| HCM Control Delay, s | 17.1 | 82.7 | 1.4 | 0.2 |
| HCM LOS | C | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EB Ln2 | WB Ln1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|--------|--------|-------|-----|-----|
| Capacity (veh/h) | 1479 | - | - | 286 | 416 | 267 | 1050 | - | - |
| HCM Lane V/C Ratio | 0.081 | - | - | 0.076 | 0.269 | 0.944 | 0.002 | - | - |
| HCM Control Delay (s) | 7.6 | - | - | 18.6 | 16.8 | 82.7 | 8.4 | - | - |
| HCM Lane LOS | A | - | - | C | C | F | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.2 | 1.1 | 8.8 | 0 | - | - |

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Cumulative AM
11/11/2015




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 239 | 808 | 420 | 185 | 1268 | 270 | 508 | 418 | 223 | 226 | 163 |
| v/c Ratio | 0.67 | 0.77 | 0.54 | 0.28 | 0.95 | 0.34 | 0.82 | 0.45 | 0.81 | 0.74 | 0.42 |
| Control Delay | 65.5 | 44.4 | 5.5 | 49.8 | 52.6 | 4.6 | 62.5 | 38.7 | 81.5 | 65.6 | 9.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 65.5 | 44.4 | 5.5 | 49.8 | 52.6 | 4.6 | 62.5 | 38.7 | 81.5 | 65.6 | 9.9 |
| Queue Length 50th (ft) | 99 | 318 | 0 | 69 | 541 | 0 | 209 | 146 | 96 | 182 | 0 |
| Queue Length 95th (ft) | 156 | 391 | 70 | 125 | #806 | 59 | 296 | 196 | #185 | 275 | 59 |
| Internal Link Dist (ft) | | 3280 | | 1790 | | | 877 | | 877 | | |
| Turn Bay Length (ft) | 550 | | 490 | 460 | | 390 | 160 | | 130 | | |
| Base Capacity (vph) | 411 | 1415 | 903 | 665 | 1336 | 787 | 712 | 1279 | 274 | 446 | 494 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.58 | 0.57 | 0.47 | 0.28 | 0.95 | 0.34 | 0.71 | 0.33 | 0.81 | 0.51 | 0.33 |

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Cumulative AM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (veh/h) | 220 | 743 | 386 | 170 | 1167 | 248 | 467 | 335 | 50 | 205 | 208 | 150 |
| Future Volume (veh/h) | 220 | 743 | 386 | 170 | 1167 | 248 | 467 | 335 | 50 | 205 | 208 | 150 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 239 | 808 | 420 | 185 | 1268 | 270 | 508 | 364 | 54 | 223 | 226 | 163 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 303 | 1003 | 479 | 635 | 1376 | 659 | 589 | 791 | 116 | 280 | 310 | 258 |
| Arrive On Green | 0.09 | 0.31 | 0.31 | 0.18 | 0.42 | 0.42 | 0.17 | 0.26 | 0.26 | 0.08 | 0.17 | 0.17 |
| Sat Flow, veh/h | 3442 | 3282 | 1568 | 3442 | 3282 | 1572 | 3442 | 3091 | 455 | 3442 | 1863 | 1555 |
| Grp Volume(v), veh/h | 239 | 808 | 420 | 185 | 1268 | 270 | 508 | 207 | 211 | 223 | 226 | 163 |
| Grp Sat Flow(s), veh/h/ln | 1721 | 1641 | 1568 | 1721 | 1641 | 1572 | 1721 | 1770 | 1776 | 1721 | 1863 | 1555 |
| Q Serve(g_s), s | 7.9 | 26.3 | 18.5 | 5.4 | 42.4 | 14.0 | 16.6 | 11.4 | 11.6 | 7.4 | 13.3 | 11.3 |
| Cycle Q Clear(g_c), s | 7.9 | 26.3 | 18.5 | 5.4 | 42.4 | 14.0 | 16.6 | 11.4 | 11.6 | 7.4 | 13.3 | 11.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.26 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 303 | 1003 | 479 | 635 | 1376 | 659 | 589 | 453 | 455 | 280 | 310 | 258 |
| V/C Ratio(X) | 0.79 | 0.81 | 0.88 | 0.29 | 0.92 | 0.41 | 0.86 | 0.46 | 0.46 | 0.80 | 0.73 | 0.63 |
| Avail Cap(c_a), veh/h | 445 | 1529 | 730 | 635 | 1444 | 692 | 772 | 702 | 705 | 297 | 482 | 402 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.8 | 37.1 | 15.1 | 40.7 | 31.9 | 23.6 | 46.7 | 36.3 | 36.4 | 52.3 | 45.8 | 45.0 |
| Incr Delay (d2), s/veh | 5.7 | 1.9 | 7.8 | 0.3 | 9.7 | 0.4 | 7.9 | 0.7 | 0.7 | 13.4 | 3.3 | 2.5 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 4.0 | 12.2 | 10.3 | 2.6 | 21.1 | 6.1 | 8.5 | 5.7 | 5.8 | 4.0 | 7.1 | 5.1 |
| LnGrp Delay(d), s/veh | 57.5 | 39.0 | 22.9 | 41.0 | 41.6 | 24.0 | 54.6 | 37.0 | 37.1 | 65.7 | 49.2 | 47.5 |
| LnGrp LOS | E | D | C | D | D | C | D | D | D | E | D | D |
| Approach Vol, veh/h | | 1467 | | | 1723 | | | 926 | | 612 | | |
| Approach Delay, s/veh | | 37.4 | | | 38.8 | | | 46.7 | | 54.8 | | |
| Approach LOS | | D | | | D | | | D | | D | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 13.4 | 33.7 | 27.4 | 41.4 | 23.8 | 23.3 | 14.2 | 54.6 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.0 | 6.0 | * 6 | 4.0 | 4.0 | 4.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | 10.0 | 46.0 | 12.0 | * 54 | 26.0 | 30.0 | 15.0 | 51.0 | | | | |
| Max Q Clear Time (g_c+1t), s | 9.4 | 13.6 | 7.4 | 28.3 | 18.6 | 15.3 | 9.9 | 44.4 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.9 | 3.4 | 7.1 | 1.2 | 3.9 | 0.3 | 4.2 | | | | |

Intersection Summary

HCM 2010 Ctrl Delay 42.0
HCM 2010 LOS D

Notes

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Cumulative PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 9.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 50 | 20 | 255 | 20 | 20 | 15 | 55 | 80 | 10 | 35 | 10 |
| Future Vol, veh/h | 0 | 50 | 20 | 255 | 20 | 20 | 15 | 55 | 80 | 10 | 35 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 54 | 22 | 277 | 22 | 22 | 16 | 60 | 87 | 11 | 38 | 11 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 223 | 244 | 43 | 239 | 207 | 103 | 49 | 0 | 0 | 147 | 0 | 0 |
| Stage 1 | 65 | 65 | - | 136 | 136 | - | - | - | - | - | - | - |
| Stage 2 | 158 | 179 | - | 103 | 71 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 733 | 658 | 1027 | 715 | 690 | 952 | 1558 | - | - | 1435 | - | - |
| Stage 1 | 946 | 841 | - | 867 | 784 | - | - | - | - | - | - | - |
| Stage 2 | 844 | 751 | - | 903 | 836 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 689 | 646 | 1027 | 646 | 677 | 952 | 1558 | - | - | 1435 | - | - |
| Mov Cap-2 Maneuver | 689 | 646 | - | 646 | 677 | - | - | - | - | - | - | - |
| Stage 1 | 936 | 834 | - | 857 | 775 | - | - | - | - | - | - | - |
| Stage 2 | 793 | 743 | - | 820 | 829 | - | - | - | - | - | - | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|------|--|--|------|--|--|-----|--|--|-----|--|--|
| HCM Control Delay, s | 10.6 | | | 15.4 | | | 0.7 | | | 1.4 | | |
| HCM LOS | B | | | C | | | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1558 | - | - | 723 | 662 | 1435 | - | - |
| HCM Lane V/C Ratio | 0.01 | - | - | 0.105 | 0.484 | 0.008 | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 10.6 | 15.4 | 7.5 | 0 | - |
| HCM Lane LOS | A | A | - | B | C | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.4 | 2.7 | 0 | - | - |

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Cumulative PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 67 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 10 | 81 | 50 | 221 | 115 | 2 | 100 | 130 | 81 | 2 | 280 | 20 |
| Future Vol, veh/h | 10 | 81 | 50 | 221 | 115 | 2 | 100 | 130 | 81 | 2 | 280 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 11 | 88 | 54 | 240 | 125 | 2 | 109 | 141 | 88 | 2 | 304 | 22 |


| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|------|------|--------|------|------|--------|---|---|--------|---|---|
| Conflicting Flow All | 671 | 767 | 163 | 604 | 733 | 115 | 326 | 0 | 0 | 229 | 0 | 0 |
| Stage 1 | 320 | 320 | - | 403 | 403 | - | - | - | - | - | - | - |
| Stage 2 | 351 | 447 | - | 201 | 330 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 342 | 331 | 853 | 382 | 346 | 916 | 1230 | - | - | 1336 | - | - |
| Stage 1 | 666 | 651 | - | 595 | 598 | - | - | - | - | - | - | - |
| Stage 2 | 639 | 572 | - | 782 | 644 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 221 | 301 | 853 | 259 | 315 | 916 | 1230 | - | - | 1336 | - | - |
| Mov Cap-2 Maneuver | 221 | 301 | - | 259 | 315 | - | - | - | - | - | - | - |
| Stage 1 | 607 | 650 | - | 542 | 545 | - | - | - | - | - | - | - |
| Stage 2 | 448 | 521 | - | 632 | 643 | - | - | - | - | - | - | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|------|--|--|-------|--|--|-----|--|--|-----|--|--|
| HCM Control Delay, s | 19.1 | | | 206.1 | | | 2.6 | | | 0.1 | | |
| HCM LOS | C | | | F | | | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|
| Capacity (veh/h) | 1230 | - | - | 221 | 400 | 277 | 1336 | - |
| HCM Lane V/C Ratio | 0.088 | - | - | 0.049 | 0.356 | 1.326 | 0.002 | - |
| HCM Control Delay (s) | 8.2 | - | - | 22.1 | 18.9 | 206.1 | 7.7 | - |
| HCM Lane LOS | A | - | - | C | C | F | A | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.2 | 1.6 | 18.7 | 0 | - |

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Cumulative PM
11/11/2015




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 198 | 1074 | 627 | 204 | 1349 | 196 | 606 | 388 | 384 | 309 | 313 |
| v/c Ratio | 0.76 | 0.88 | 0.72 | 0.57 | 1.03 | 0.27 | 0.92 | 0.42 | 0.84 | 0.81 | 0.71 |
| Control Delay | 82.9 | 51.2 | 14.3 | 69.2 | 75.2 | 6.7 | 76.3 | 42.7 | 76.4 | 70.0 | 35.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 82.9 | 51.2 | 14.3 | 69.2 | 75.2 | 6.7 | 76.3 | 42.7 | 76.4 | 70.0 | 35.3 |
| Queue Length 50th (ft) | 93 | 462 | 113 | 96 | -700 | 11 | 285 | 151 | 178 | 273 | 140 |
| Queue Length 95th (ft) | #161 | 612 | 290 | #168 | #926 | 67 | #434 | 201 | #271 | 382 | 249 |
| Internal Link Dist (ft) | | 3280 | | | 1790 | | | 877 | | 877 | |
| Turn Bay Length (ft) | 550 | | 490 | 460 | | 390 | 160 | | 130 | | |
| Base Capacity (vph) | 268 | 1306 | 895 | 356 | 1306 | 718 | 659 | 1111 | 488 | 503 | 529 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.74 | 0.82 | 0.70 | 0.57 | 1.03 | 0.27 | 0.92 | 0.35 | 0.79 | 0.61 | 0.59 |

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Cumulative PM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↕↕ | ↔↔ | ↔↔ | ↕↕ | ↔↔ | ↔↔ | ↕↕ | ↔↔ | ↔↔ | ↕↕ | ↔↔ |
| Traffic Volume (veh/h) | 190 | 1031 | 602 | 196 | 1295 | 188 | 582 | 312 | 60 | 369 | 297 | 300 |
| Future Volume (veh/h) | 190 | 1031 | 602 | 196 | 1295 | 188 | 582 | 312 | 60 | 369 | 297 | 300 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 198 | 1074 | 627 | 204 | 1349 | 196 | 606 | 325 | 62 | 384 | 309 | 312 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 244 | 1195 | 572 | 277 | 1272 | 609 | 643 | 863 | 163 | 433 | 428 | 359 |
| Arrive On Green | 0.07 | 0.36 | 0.36 | 0.08 | 0.39 | 0.39 | 0.19 | 0.29 | 0.29 | 0.13 | 0.23 | 0.23 |
| Sat Flow, veh/h | 3442 | 3282 | 1570 | 3442 | 3282 | 1571 | 3442 | 2968 | 559 | 3442 | 1863 | 1563 |
| Grp Volume(v), veh/h | 198 | 1074 | 627 | 204 | 1349 | 196 | 606 | 192 | 195 | 384 | 309 | 312 |
| Grp Sat Flow(s), veh/h/ln | 1721 | 1641 | 1570 | 1721 | 1641 | 1571 | 1721 | 1770 | 1757 | 1721 | 1863 | 1563 |
| Q Serve(g_s), s | 8.2 | 44.7 | 31.4 | 8.4 | 56.0 | 12.6 | 25.1 | 12.5 | 12.8 | 15.9 | 22.1 | 27.8 |
| Cycle Q Clear(g_c), s | 8.2 | 44.7 | 31.4 | 8.4 | 56.0 | 12.6 | 25.1 | 12.5 | 12.8 | 15.9 | 22.1 | 27.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.32 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 244 | 1195 | 572 | 277 | 1272 | 609 | 643 | 515 | 511 | 433 | 428 | 359 |
| V/C Ratio(X) | 0.81 | 0.90 | 1.10 | 0.74 | 1.06 | 0.32 | 0.94 | 0.37 | 0.38 | 0.89 | 0.72 | 0.87 |
| Avail Cap(c_a), veh/h | 262 | 1272 | 609 | 277 | 1272 | 609 | 643 | 551 | 547 | 477 | 490 | 411 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 66.1 | 43.4 | 16.4 | 64.9 | 44.2 | 30.9 | 57.9 | 40.7 | 40.8 | 62.1 | 51.4 | 53.5 |
| Incr Delay (d2), s/veh | 16.4 | 8.5 | 66.7 | 9.7 | 42.8 | 0.3 | 22.3 | 0.4 | 0.5 | 16.9 | 4.4 | 16.2 |
| Initial Q Delay(d3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 4.5 | 21.7 | 24.9 | 4.4 | 32.8 | 5.5 | 13.9 | 6.1 | 6.3 | 8.6 | 11.9 | 13.6 |
| LnGrp Delay(d), s/veh | 82.6 | 51.9 | 83.1 | 74.6 | 87.1 | 31.2 | 80.2 | 41.2 | 41.3 | 79.0 | 55.8 | 69.7 |
| LnGrp LOS | F | D | F | E | F | C | F | D | D | E | E | E |
| Approach Vol, veh/h | | 1899 | | | 1749 | | | 993 | | | 1005 | |
| Approach Delay, s/veh | | 65.4 | | | 79.4 | | | 65.0 | | | 69.0 | |
| Approach LOS | | E | | | E | | | E | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 22.2 | 46.0 | 17.6 | 58.6 | 31.0 | 37.2 | 14.2 | 62.0 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.0 | 6.0 | * 6 | 4.0 | 4.0 | 4.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 45.0 | 11.0 | * 56 | 27.0 | 38.0 | 11.0 | 56.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 17.9 | 14.8 | 10.4 | 46.7 | 27.1 | 29.8 | 10.2 | 58.0 | | | | |
| Green Ext Time (p_c), s | 0.3 | 6.0 | 0.5 | 5.9 | 0.0 | 3.4 | 0.0 | 0.0 | | | | |

Intersection Summary

- HCM 2010 Ctrl Delay 70.3
- HCM 2010 LOS E

Notes

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Cumulative Plus Project AM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 12.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 115 | 10 | 168 | 26 | 10 | 25 | 30 | 598 | 20 | 30 | 20 |
| Future Vol, veh/h | 0 | 115 | 10 | 168 | 26 | 10 | 25 | 30 | 598 | 20 | 30 | 20 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 125 | 11 | 183 | 28 | 11 | 27 | 33 | 650 | 22 | 33 | 22 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 519 | 824 | 43 | 567 | 510 | 358 | 54 | 0 | 0 | 683 | 0 | 0 |
| Stage 1 | 87 | 87 | - | 412 | 412 | - | - | - | - | - | - | - |
| Stage 2 | 432 | 737 | - | 155 | 98 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 467 | 308 | 1027 | 434 | 467 | 686 | 1551 | - | - | 910 | - | - |
| Stage 1 | 921 | 823 | - | 617 | 594 | - | - | - | - | - | - | - |
| Stage 2 | 602 | 425 | - | 847 | 814 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 419 | 291 | 1027 | 274 | 441 | 686 | 1551 | - | - | 910 | - | - |
| Mov Cap-2 Maneuver | 419 | 291 | - | 274 | 441 | - | - | - | - | - | - | - |
| Stage 1 | 892 | 802 | - | 597 | 575 | - | - | - | - | - | - | - |
| Stage 2 | 545 | 411 | - | 690 | 794 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|-----|
| HCM Control Delay, s | 25.5 | 45.7 | 0.3 | 2.6 |
| HCM LOS | D | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1551 | - | - | 309 | 297 | 910 | - | - |
| HCM Lane V/C Ratio | 0.018 | - | - | 0.44 | 0.747 | 0.024 | - | - |
| HCM Control Delay (s) | 7.4 | 0 | - | 25.5 | 45.7 | 9.1 | 0 | - |
| HCM Lane LOS | A | A | - | D | E | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 2.1 | 5.6 | 0.1 | - | - |

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Cumulative Plus Project AM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 98.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 45 | 53 | 50 | 125 | 105 | 2 | 110 | 598 | 221 | 2 | 172 | 16 |
| Future Vol, veh/h | 45 | 53 | 50 | 125 | 105 | 2 | 110 | 598 | 221 | 2 | 172 | 16 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 49 | 58 | 54 | 136 | 114 | 2 | 120 | 650 | 240 | 2 | 187 | 17 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|------|------|--------|------|------|--------|---|---|--------|---|---|
| Conflicting Flow All | 821 | 1329 | 102 | 1136 | 1218 | 445 | 204 | 0 | 0 | 890 | 0 | 0 |
| Stage 1 | 200 | 200 | - | 1009 | 1009 | - | - | - | - | - | - | - |
| Stage 2 | 621 | 1129 | - | 127 | 209 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 266 | 154 | 933 | 157 | 179 | 561 | 1365 | - | - | 757 | - | - |
| Stage 1 | 783 | 735 | - | 257 | 316 | - | - | - | - | - | - | - |
| Stage 2 | 442 | 277 | - | 863 | 728 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 108 | 140 | 933 | -94 | 163 | 561 | 1365 | - | - | 757 | - | - |
| Mov Cap-2 Maneuver | 108 | 140 | - | -94 | 163 | - | - | - | - | - | - | - |
| Stage 1 | 714 | 733 | - | 234 | 288 | - | - | - | - | - | - | - |
| Stage 2 | 242 | 253 | - | 747 | 726 | - | - | - | - | - | - | - |


| Approach | EB | WB | NB | SB |
|----------------------|------|----------|-----|-----|
| HCM Control Delay, s | 42.2 | \$ 607.8 | 0.9 | 0.1 |
| HCM LOS | E | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-------|-----|
| Capacity (veh/h) | 1365 | - | - | 108 | 238 | 117 | 757 | - |
| HCM Lane V/C Ratio | 0.088 | - | - | 0.453 | 0.47 | 2.155 | 0.003 | - |
| HCM Control Delay (s) | 7.9 | - | - | 63.4 | 32.9 | 607.8 | 9.8 | - |
| HCM Lane LOS | A | - | - | F | D | F | A | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 2 | 2.3 | 21.3 | 0 | - |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Cumulative Plus Project AM
11/11/2015




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph) | 401 | 808 | 420 | 185 | 1268 | 404 | 508 | 500 | 254 | 246 | 201 |
| v/c Ratio | 1.01 | 0.78 | 0.54 | 0.28 | 0.98 | 0.52 | 0.83 | 0.53 | 0.96 | 0.77 | 0.47 |
| Control Delay | 103.9 | 45.8 | 5.5 | 50.7 | 59.7 | 12.9 | 64.8 | 40.8 | 105.2 | 67.9 | 9.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 103.9 | 45.8 | 5.5 | 50.7 | 59.7 | 12.9 | 64.8 | 40.8 | 105.2 | 67.9 | 9.6 |
| Queue Length 50th (ft) | -186 | 326 | 0 | 70 | 560 | 78 | 214 | 183 | 112 | 202 | 0 |
| Queue Length 95th (ft) | #318 | 391 | 70 | 125 | #806 | 195 | 296 | 237 | #219 | 299 | 66 |
| Internal Link Dist (ft) | | 3280 | | 1790 | | | | 877 | | 877 | |
| Turn Bay Length (ft) | 550 | | 490 | 460 | | 390 | 160 | | 130 | | |
| Base Capacity (vph) | 398 | 1372 | 888 | 671 | 1296 | 772 | 691 | 1244 | 265 | 433 | 512 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.01 | 0.59 | 0.47 | 0.28 | 0.98 | 0.52 | 0.74 | 0.40 | 0.96 | 0.57 | 0.39 |

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Cumulative Plus Project AM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↔↔ | ↔↔ | ↔ | ↔↔ | ↔↔ | ↔ | ↔ | ↔ | ↔ | ↔↔ | ↔ | ↔ |
| Traffic Volume (veh/h) | 369 | 743 | 386 | 170 | 1167 | 372 | 467 | 410 | 50 | 234 | 226 | 185 |
| Future Volume (veh/h) | 369 | 743 | 386 | 170 | 1167 | 372 | 467 | 410 | 50 | 234 | 226 | 185 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 401 | 808 | 420 | 185 | 1268 | 404 | 508 | 446 | 54 | 254 | 246 | 201 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 405 | 980 | 468 | 696 | 1309 | 627 | 577 | 837 | 101 | 270 | 325 | 271 |
| Arrive On Green | 0.12 | 0.30 | 0.30 | 0.20 | 0.40 | 0.40 | 0.17 | 0.26 | 0.26 | 0.08 | 0.17 | 0.17 |
| Sat Flow, veh/h | 3442 | 3282 | 1567 | 3442 | 3282 | 1571 | 3442 | 3177 | 383 | 3442 | 1863 | 1556 |
| Grp Volume(v), veh/h | 401 | 808 | 420 | 185 | 1268 | 404 | 508 | 247 | 253 | 254 | 246 | 201 |
| Grp Sat Flow(s),veh/h/ln | 1721 | 1641 | 1567 | 1721 | 1641 | 1571 | 1721 | 1770 | 1790 | 1721 | 1863 | 1556 |
| Q Serve(g_s), s | 14.8 | 29.2 | 21.2 | 5.8 | 48.2 | 26.5 | 18.4 | 15.2 | 15.4 | 9.4 | 16.0 | 15.6 |
| Cycle Q Clear(g_c), s | 14.8 | 29.2 | 21.2 | 5.8 | 48.2 | 26.5 | 18.4 | 15.2 | 15.4 | 9.4 | 16.0 | 15.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.21 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 405 | 980 | 468 | 696 | 1309 | 627 | 577 | 466 | 472 | 270 | 325 | 271 |
| V/C Ratio(X) | 0.99 | 0.82 | 0.90 | 0.27 | 0.97 | 0.64 | 0.88 | 0.53 | 0.54 | 0.94 | 0.76 | 0.74 |
| Avail Cap(c_a), veh/h | 405 | 1391 | 664 | 696 | 1314 | 629 | 702 | 639 | 646 | 270 | 439 | 366 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 56.1 | 41.5 | 18.0 | 42.8 | 37.5 | 31.0 | 51.8 | 40.2 | 40.2 | 58.4 | 50.0 | 49.9 |
| Incr Delay (d2), s/veh | 41.8 | 2.8 | 11.4 | 0.2 | 17.7 | 2.3 | 10.8 | 0.9 | 0.9 | 38.8 | 5.2 | 5.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 9.4 | 13.6 | 11.6 | 2.8 | 25.1 | 11.9 | 9.6 | 7.5 | 7.8 | 5.9 | 8.7 | 7.1 |
| LnGrp Delay(d),s/veh | 97.9 | 44.4 | 29.4 | 43.0 | 55.2 | 33.2 | 62.6 | 41.1 | 41.2 | 97.2 | 55.2 | 55.2 |
| LnGrp LOS | F | D | C | D | E | C | E | D | D | F | E | E |
| Approach Vol, veh/h | | 1629 | | | 1857 | | | 1008 | | | | 701 |
| Approach Delay, s/veh | | 53.7 | | | 49.2 | | | 51.9 | | | | 70.4 |
| Approach LOS | | D | | | D | | | D | | | | E |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.0 | 37.6 | 31.8 | 44.1 | 25.4 | 26.2 | 19.0 | 56.8 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.0 | 6.0 | * 6 | 4.0 | 4.0 | 4.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | 10.0 | 46.0 | 12.0 | * 54 | 26.0 | 30.0 | 15.0 | 51.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 11.4 | 17.4 | 7.8 | 31.2 | 20.4 | 18.0 | 16.8 | 50.2 | | | | |
| Green Ext Time (p_c), s | 0.0 | 5.8 | 3.3 | 6.9 | 1.0 | 4.2 | 0.0 | 0.6 | | | | |

Intersection Summary

- HCM 2010 Ctrl Delay 54.0
- HCM 2010 LOS D

Notes

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Cumulative Plus Project PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 82.1 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 60 | 20 | 564 | 41 | 20 | 15 | 55 | 223 | 10 | 35 | 10 |
| Future Vol, veh/h | 0 | 60 | 20 | 564 | 41 | 20 | 15 | 55 | 223 | 10 | 35 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 65 | 22 | 613 | 45 | 22 | 16 | 60 | 242 | 11 | 38 | 11 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|------|---|--------|---|---|
| Conflicting Flow All | 312 | 400 | 43 | 323 | 285 | 181 | 49 | 0 | 0 | 302 | 0 | 0 |
| Stage 1 | 65 | 65 | - | 214 | 214 | - | - | - | - | - | - | - |
| Stage 2 | 247 | 335 | - | 109 | 71 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 641 | 538 | 1027 | 630 | 624 | 862 | 1558 | - | - | 1259 | - | - |
| Stage 1 | 946 | 841 | - | 788 | 725 | - | - | - | - | - | - | - |
| Stage 2 | 757 | 643 | - | 896 | 836 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 580 | 526 | 1027 | - | 549 | 610 | 862 | 1558 | - | 1259 | - | - |
| Mov Cap-2 Maneuver | 580 | 526 | - | - | 549 | 610 | - | - | - | - | - | - |
| Stage 1 | 934 | 833 | - | 778 | 716 | - | - | - | - | - | - | - |
| Stage 2 | 683 | 635 | - | 801 | 828 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|-------|-----|-----|
| HCM Control Delay, s | 12 | 136.5 | 0.4 | 1.4 |
| HCM LOS | B | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1558 | - | - | 599 | 559 | 1259 | - | - |
| HCM Lane V/C Ratio | 0.01 | - | - | 0.145 | 1.215 | 0.009 | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 12 | 136.5 | 7.9 | 0 | - |
| HCM Lane LOS | A | A | - | B | F | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.5 | 25.2 | 0 | - | - |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Cumulative Plus Project PM
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 225.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 20 | 81 | 50 | 221 | 115 | 2 | 100 | 264 | 81 | 2 | 569 | 41 |
| Future Vol, veh/h | 20 | 81 | 50 | 221 | 115 | 2 | 100 | 264 | 81 | 2 | 569 | 41 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 140 | - | - | - | - | - | 180 | - | - | 50 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 22 | 88 | 54 | 240 | 125 | 2 | 109 | 287 | 88 | 2 | 618 | 45 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|------|------|--------|------|------|--------|-----|---|--------|------|---|
| Conflicting Flow All | 1068 | 1237 | 332 | 906 | 1215 | 188 | 663 | 0 | 0 | 375 | 0 | 0 |
| Stage 1 | 645 | 645 | - | 548 | 548 | - | - | - | - | - | - | - |
| Stage 2 | 423 | 592 | - | 358 | 667 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.54 | 6.54 | 6.94 | 7.54 | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.54 | 5.54 | - | 6.54 | 5.54 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 4.02 | 3.32 | 3.52 | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver | 176 | 175 | 664 | - | 231 | 180 | 822 | 922 | - | - | 1180 | - |
| Stage 1 | 427 | 466 | - | 488 | 515 | - | - | - | - | - | - | - |
| Stage 2 | 579 | 492 | - | 633 | 455 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 56 | 154 | 664 | - | 106 | 158 | 822 | 922 | - | - | 1180 | - |
| Mov Cap-2 Maneuver | 56 | 154 | - | - | 106 | 158 | - | - | - | - | - | - |
| Stage 1 | 377 | 465 | - | 430 | 454 | - | - | - | - | - | - | - |
| Stage 2 | 369 | 434 | - | 470 | 454 | - | - | - | - | - | - | - |


| Approach | EB | WB | NB | SB |
|----------------------|------|-----------|-----|----|
| HCM Control Delay, s | 55.7 | \$ 1005.3 | 2.1 | 0 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|--------|-------|-----|
| Capacity (veh/h) | 922 | - | - | 56 | 218 | 120 | 1180 | - |
| HCM Lane V/C Ratio | 0.118 | - | - | 0.388 | 0.653 | 3.062 | 0.002 | - |
| HCM Control Delay (s) | 9.4 | - | - | 105.4 | 48.3 | 1005.3 | 8.1 | - |
| HCM Lane LOS | A | - | - | F | E | F | A | - |
| HCM 95th %tile Q(veh) | 0.4 | - | - | 1.4 | 4 | 34.9 | 0 | - |

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Cumulative Plus Project PM
11/11/2015




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|-------------------------|-------|------|------|------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph) | 257 | 1074 | 627 | 204 | 1349 | 246 | 606 | 418 | 492 | 374 | 442 |
| v/c Ratio | 1.00 | 0.90 | 0.75 | 0.64 | 1.07 | 0.34 | 0.96 | 0.43 | 1.05 | 0.86 | 0.92 |
| Control Delay | 122.4 | 54.8 | 17.5 | 75.2 | 90.7 | 6.9 | 85.7 | 42.6 | 114.7 | 73.0 | 61.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 122.4 | 54.8 | 17.5 | 75.2 | 90.7 | 6.9 | 85.7 | 42.6 | 114.7 | 73.0 | 61.2 |
| Queue Length 50th (ft) | -137 | 513 | 164 | 103 | -786 | 16 | 308 | 166 | -275 | 345 | 289 |
| Queue Length 95th (ft) | #231 | 612 | 330 | #168 | #926 | 78 | #434 | 217 | #392 | #479 | #485 |
| Internal Link Dist (ft) | | 3280 | | 1790 | | | 877 | | 877 | | |
| Turn Bay Length (ft) | 550 | | 490 | 460 | | 390 | 160 | | 130 | | |
| Base Capacity (vph) | 257 | 1256 | 859 | 319 | 1256 | 725 | 633 | 1069 | 469 | 483 | 514 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.00 | 0.86 | 0.73 | 0.64 | 1.07 | 0.34 | 0.96 | 0.39 | 1.05 | 0.77 | 0.86 |

Intersection Summary

- Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Wisteria Lane GPA
3: Golden Hill Rd & SR 46 E

Cumulative Plus Project PM
11/11/2015



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|-------|------|------|------|-------|------|------|------|------|-------|-------|-------|
| Lane Configurations | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |
| Traffic Volume (veh/h) | 247 | 1031 | 602 | 196 | 1295 | 236 | 582 | 341 | 60 | 472 | 359 | 424 |
| Future Volume (veh/h) | 247 | 1031 | 602 | 196 | 1295 | 236 | 582 | 341 | 60 | 472 | 359 | 424 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Ob), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.99 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1727 | 1863 | 1863 | 1727 | 1863 | 1863 | 1863 | 1900 | 1863 | 1863 | 1863 |
| Adj Flow Rate, veh/h | 257 | 1074 | 627 | 204 | 1349 | 246 | 606 | 355 | 62 | 492 | 374 | 442 |
| Adj No. of Lanes | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 10 | 2 | 2 | 10 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 252 | 1174 | 562 | 260 | 1225 | 586 | 619 | 904 | 156 | 459 | 472 | 396 |
| Arrive On Green | 0.07 | 0.36 | 0.36 | 0.08 | 0.37 | 0.37 | 0.18 | 0.30 | 0.30 | 0.13 | 0.25 | 0.25 |
| Sat Flow, veh/h | 3442 | 3282 | 1570 | 3442 | 3282 | 1571 | 3442 | 3013 | 521 | 3442 | 1863 | 1565 |
| Grp Volume(v), veh/h | 257 | 1074 | 627 | 204 | 1349 | 246 | 606 | 207 | 210 | 492 | 374 | 442 |
| Grp Sat Flow(s), veh/h/ln | 1721 | 1641 | 1570 | 1721 | 1641 | 1571 | 1721 | 1770 | 1765 | 1721 | 1863 | 1565 |
| Q Serve(g_s), s | 11.0 | 46.9 | 33.1 | 8.7 | 56.0 | 17.5 | 26.3 | 13.9 | 14.2 | 20.0 | 28.1 | 38.0 |
| Cycle Q Clear(g_c), s | 11.0 | 46.9 | 33.1 | 8.7 | 56.0 | 17.5 | 26.3 | 13.9 | 14.2 | 20.0 | 28.1 | 38.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.30 | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 252 | 1174 | 562 | 260 | 1225 | 586 | 619 | 531 | 529 | 459 | 472 | 396 |
| V/C Ratio(X) | 1.02 | 0.91 | 1.12 | 0.78 | 1.10 | 0.42 | 0.98 | 0.39 | 0.40 | 1.07 | 0.79 | 1.12 |
| Avail Cap(c_a), veh/h | 252 | 1225 | 586 | 260 | 1225 | 586 | 619 | 531 | 529 | 459 | 472 | 396 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 69.5 | 46.0 | 18.3 | 68.1 | 47.0 | 34.9 | 61.2 | 41.6 | 41.7 | 65.0 | 52.3 | 56.0 |
| Incr Delay (d2), s/veh | 61.4 | 10.4 | 74.0 | 14.5 | 58.0 | 0.5 | 30.6 | 0.5 | 0.5 | 62.7 | 9.0 | 80.2 |
| Initial Q Delay(d3), s/veh | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%), veh/ln | 7.4 | 22.9 | 25.8 | 4.7 | 35.2 | 7.7 | 15.2 | 6.9 | 7.0 | 13.5 | 15.6 | 25.2 |
| LnGrp Delay(d), s/veh | 131.0 | 56.4 | 92.3 | 82.7 | 105.0 | 35.4 | 91.8 | 42.1 | 42.2 | 127.7 | 61.3 | 136.2 |
| LnGrp LOS | F | E | F | F | F | D | F | D | D | F | E | F |
| Approach Vol, veh/h | | 1958 | | | 1799 | | | 1023 | | | 1308 | |
| Approach Delay, s/veh | | 77.7 | | | 93.0 | | | 71.6 | | | 111.6 | |
| Approach LOS | | E | | | F | | | E | | | F | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 24.0 | 49.0 | 17.3 | 59.7 | 31.0 | 42.0 | 15.0 | 62.0 | | | | |
| Change Period (Y+Rc), s | 4.0 | 4.0 | 6.0 | * 6 | 4.0 | 4.0 | 4.0 | 6.0 | | | | |
| Max Green Setting (Gmax), s | 20.0 | 45.0 | 11.0 | * 56 | 27.0 | 38.0 | 11.0 | 56.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 22.0 | 16.2 | 10.7 | 48.9 | 28.3 | 40.0 | 13.0 | 58.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 7.5 | 0.2 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |

Intersection Summary

- HCM 2010 Ctrl Delay 88.5
- HCM 2010 LOS F

Notes

Wisteria Lane GPA
1: Golden Hill Rd & Wisteria Ln

Mitigated PHF Existing Plus Project PM
11/16/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 13 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 0 | 5 | 520 | 1 | 0 | 6 | 6 | 220 | 0 | 4 | 0 |
| Future Vol, veh/h | 0 | 0 | 5 | 520 | 1 | 0 | 6 | 6 | 220 | 0 | 4 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 5 | 565 | 1 | 0 | 7 | 7 | 239 | 0 | 4 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 144 | 263 | 4 | 146 | 143 | 126 | 4 | 0 | 0 | 246 | 0 | 0 |
| Stage 1 | 4 | 4 | - | 139 | 139 | - | - | - | - | - | - | - |
| Stage 2 | 140 | 259 | - | 7 | 4 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 825 | 642 | 1080 | 823 | 748 | 924 | 1618 | - | - | 1320 | - | - |
| Stage 1 | 1018 | 892 | - | 864 | 782 | - | - | - | - | - | - | - |
| Stage 2 | 863 | 694 | - | 1015 | 892 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 821 | 639 | 1080 | 816 | 744 | 924 | 1618 | - | - | 1320 | - | - |
| Mov Cap-2 Maneuver | 821 | 639 | - | 816 | 744 | - | - | - | - | - | - | - |
| Stage 1 | 1013 | 892 | - | 860 | 778 | - | - | - | - | - | - | - |
| Stage 2 | 857 | 691 | - | 1010 | 892 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|------|-----|----|
| HCM Control Delay, s | 8.4 | 18.8 | 0.2 | 0 |
| HCM LOS | A | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1618 | - | - | 1080 | 816 | 1320 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | - | 0.005 | 0.694 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.4 | 18.8 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | C | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 5.7 | 0 | - | - |

HCM 2010 TWSC
1: Golden Hill Rd & Wisteria Ln

Mitigated (NBR) E+P PM
11/13/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 19 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 0 | 5 | 520 | 1 | 0 | 6 | 6 | 220 | 0 | 4 | 0 |
| Future Vol, veh/h | 0 | 0 | 5 | 520 | 1 | 0 | 6 | 6 | 220 | 0 | 4 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 150 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 | 63 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 8 | 825 | 2 | 0 | 10 | 10 | 349 | 0 | 6 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 35 | 35 | 6 | 39 | 35 | 10 | 6 | 0 | 0 | 10 | 0 | 0 |
| Stage 1 | 6 | 6 | - | 29 | 29 | - | - | - | - | - | - | - |
| Stage 2 | 29 | 29 | - | 10 | 6 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 971 | 857 | 1077 | 966 | 857 | 1071 | 1615 | - | - | 1610 | - | - |
| Stage 1 | 1016 | 891 | - | 988 | 871 | - | - | - | - | - | - | - |
| Stage 2 | 988 | 871 | - | 1011 | 891 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 964 | 850 | 1077 | 953 | 850 | 1071 | 1615 | - | - | 1610 | - | - |
| Mov Cap-2 Maneuver | 964 | 850 | - | 953 | 850 | - | - | - | - | - | - | - |
| Stage 1 | 1008 | 891 | - | 980 | 864 | - | - | - | - | - | - | - |
| Stage 2 | 978 | 864 | - | 1004 | 891 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|------|-----|----|
| HCM Control Delay, s | 8.4 | 27.6 | 0.2 | 0 |
| HCM LOS | A | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1615 | - | - | 1077 | 953 | 1610 | - | - |
| HCM Lane V/C Ratio | 0.006 | - | - | 0.007 | 0.868 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.4 | 27.6 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | D | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 11.4 | 0 | - | - |

HCM 2010 TWSC
1: Golden Hill Rd & Wisteria Ln

Mitigated Existing Plus Project NBR & PHF PM
11/16/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 9.5 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 0 | 5 | 520 | 1 | 0 | 6 | 6 | 220 | 0 | 4 | 0 |
| Future Vol, veh/h | 0 | 0 | 5 | 520 | 1 | 0 | 6 | 6 | 220 | 0 | 4 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 150 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 5 | 565 | 1 | 0 | 7 | 7 | 239 | 0 | 4 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 24 | 24 | 4 | 27 | 24 | 7 | 4 | 0 | 0 | 7 | 0 | 0 |
| Stage 1 | 4 | 4 | - | 20 | 20 | - | - | - | - | - | - | - |
| Stage 2 | 20 | 20 | - | 7 | 4 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 987 | 869 | 1080 | 983 | 869 | 1075 | 1618 | - | - | 1614 | - | - |
| Stage 1 | 1018 | 892 | - | 999 | 879 | - | - | - | - | - | - | - |
| Stage 2 | 999 | 879 | - | 1015 | 892 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 982 | 865 | 1080 | 974 | 865 | 1075 | 1618 | - | - | 1614 | - | - |
| Mov Cap-2 Maneuver | 982 | 865 | - | 974 | 865 | - | - | - | - | - | - | - |
| Stage 1 | 1013 | 892 | - | 994 | 875 | - | - | - | - | - | - | - |
| Stage 2 | 993 | 875 | - | 1010 | 892 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|------|-----|----|
| HCM Control Delay, s | 8.4 | 13.7 | 0.2 | 0 |
| HCM LOS | A | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1618 | - | - | 1080 | 974 | 1614 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | - | 0.005 | 0.581 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.4 | 13.7 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 3.9 | 0 | - | - |

HCM 2010 TWSC
1: Golden Hill Rd & Wisteria Ln

Mitigated Near Term Plus Project PM NBR
11/11/2015

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 17.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Vol, veh/h | 0 | 0 | 5 | 663 | 1 | 0 | 6 | 55 | 270 | 0 | 31 | 0 |
| Future Vol, veh/h | 0 | 0 | 5 | 663 | 1 | 0 | 6 | 55 | 270 | 0 | 31 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 150 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 5 | 721 | 1 | 0 | 7 | 60 | 293 | 0 | 34 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-------|--------|---|---|--------|---|---|
| Conflicting Flow All | 107 | 107 | 34 | 109 | 107 | 60 | 34 | 0 | 0 | 60 | 0 | 0 |
| Stage 1 | 34 | 34 | - | 73 | 73 | - | - | - | - | - | - | - |
| Stage 2 | 73 | 73 | - | 36 | 34 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 872 | 783 | 1039 | 870 | 783 | 1005 | 1578 | - | - | 1544 | - | - |
| Stage 1 | 982 | 867 | - | 937 | 834 | - | - | - | - | - | - | - |
| Stage 2 | 937 | 834 | - | 980 | 867 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 867 | 778 | 1039 | 861 | 778 | 1005 | 1578 | - | - | 1544 | - | - |
| Mov Cap-2 Maneuver | 867 | 778 | - | 861 | 778 | - | - | - | - | - | - | - |
| Stage 1 | 976 | 867 | - | 931 | 829 | - | - | - | - | - | - | - |
| Stage 2 | 930 | 829 | - | 975 | 867 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|-----|------|-----|----|
| HCM Control Delay, s | 8.5 | 26.7 | 0.1 | 0 |
| HCM LOS | A | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|------|-----|-----|
| Capacity (veh/h) | 1578 | - | - | 1039 | 861 | 1544 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | - | 0.005 | 0.838 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.5 | 26.7 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | D | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 9.9 | 0 | - | - |

HCM 2010 Roundabout
1: Golden Hill Rd & Wisteria Ln

Mitigated Near Term Plus Project PM Roundabout
11/11/2015

| Intersection | | | | |
|-----------------------------|-------|-------|-------|-------|
| Intersection Delay, s/veh | 11.7 | | | |
| Intersection LOS | B | | | |
| Approach | EB | WB | NB | SB |
| Entry Lanes | 1 | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 5 | 722 | 360 | 34 |
| Demand Flow Rate, veh/h | 5 | 736 | 367 | 35 |
| Vehicles Circulating, veh/h | 770 | 68 | 0 | 743 |
| Vehicles Exiting, veh/h | 8 | 299 | 775 | 61 |
| Follow-Up Headway, s | 3.186 | 3.186 | 3.186 | 3.186 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 7.0 | 14.5 | 6.4 | 7.6 |
| Approach LOS | A | B | A | A |
| Lane | Left | Left | Left | Left |
| Designated Moves | LTR | LTR | LTR | LTR |
| Assumed Moves | LTR | LTR | LTR | LTR |
| RT Channelized | | | | |
| Lane Util | 1.000 | 1.000 | 1.000 | 1.000 |
| Critical Headway, s | 5.193 | 5.193 | 5.193 | 5.193 |
| Entry Flow, veh/h | 5 | 736 | 367 | 35 |
| Cap Entry Lane, veh/h | 523 | 1056 | 1130 | 537 |
| Entry HV Adj Factor | 1.000 | 0.981 | 0.980 | 0.980 |
| Flow Entry, veh/h | 5 | 722 | 360 | 34 |
| Cap Entry, veh/h | 523 | 1036 | 1108 | 527 |
| V/C Ratio | 0.010 | 0.697 | 0.325 | 0.065 |
| Control Delay, s/veh | 7.0 | 14.5 | 6.4 | 7.6 |
| LOS | A | B | A | A |
| 95th %tile Queue, veh | 0 | 6 | 1 | 0 |

Queues
1: Golden Hill Rd & Wisteria Ln

Mitigated Near Term Plus Project PM Signal
12/2/2015



| Lane Group | EBT | WBL | WBT | NBT | NBR | SBT |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 5 | 360 | 362 | 67 | 293 | 34 |
| v/c Ratio | 0.01 | 0.44 | 0.44 | 0.16 | 0.50 | 0.08 |
| Control Delay | 0.0 | 8.7 | 8.7 | 13.0 | 5.8 | 12.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 0.0 | 8.7 | 8.7 | 13.0 | 5.8 | 12.7 |
| Queue Length 50th (ft) | 0 | 28 | 28 | 7 | 0 | 3 |
| Queue Length 95th (ft) | 0 | 140 | 140 | 42 | 49 | 26 |
| Internal Link Dist (ft) | 355 | | 632 | 583 | | 576 |
| Turn Bay Length (ft) | | 200 | | | 150 | |
| Base Capacity (vph) | 619 | 1342 | 1346 | 1105 | 1081 | 1138 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.01 | 0.27 | 0.27 | 0.06 | 0.27 | 0.03 |
| Intersection Summary | | | | | | |

Agenda Item No. 1 - Part B 362

HCM Signalized Intersection Capacity Analysis Mitigated Near Term Plus Project PM Signal
 1: Golden Hill Rd & Wisteria Ln 12/2/2015

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|------|-------|------|-------|-------|------|------|---------------------------|-------|------|------|------|
| Lane Configurations | | ↔ | | ↔ | ↔ | | | ↔ | ↔ | | ↔ | |
| Traffic Volume (vph) | 0 | 0 | 5 | 663 | 1 | 0 | 6 | 55 | 270 | 0 | 31 | 0 |
| Future Volume (vph) | 0 | 0 | 5 | 663 | 1 | 0 | 6 | 55 | 270 | 0 | 31 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | | 4.0 | | 4.0 | 4.0 | | | 4.0 | 4.0 | | 4.0 | |
| Lane Util. Factor | | 1.00 | | 0.95 | 0.95 | | | 1.00 | 1.00 | | 1.00 | |
| Frt | | 0.86 | | 1.00 | 1.00 | | | 1.00 | 0.85 | | 1.00 | |
| Flt Protected | | 1.00 | | 0.95 | 0.95 | | | 0.99 | 1.00 | | 1.00 | |
| Satd. Flow (prot) | | 1611 | | 1681 | 1686 | | | 1853 | 1583 | | 1863 | |
| Flt Permitted | | 1.00 | | 0.95 | 0.95 | | | 0.97 | 1.00 | | 1.00 | |
| Satd. Flow (perm) | | 1611 | | 1681 | 1686 | | | 1809 | 1583 | | 1863 | |
| Peak-hour factor, PHF | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 0 | 5 | 721 | 1 | 0 | 7 | 60 | 293 | 0 | 34 | 0 |
| RTOR Reduction (vph) | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 232 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 0 | 0 | 0 | 360 | 362 | 0 | 0 | 67 | 61 | 0 | 34 | 0 |
| Turn Type | | NA | | Split | NA | | Perm | NA | Perm | | NA | |
| Protected Phases | | 4 | | 8 | 8 | | | 2 | | | 6 | |
| Permitted Phases | | 4 | | | | | 2 | | 2 | | 6 | |
| Actuated Green, G (s) | | 0.5 | | 16.3 | 16.3 | | | 7.6 | 7.6 | | 7.6 | |
| Effective Green, g (s) | | 0.5 | | 16.3 | 16.3 | | | 7.6 | 7.6 | | 7.6 | |
| Actuated g/C Ratio | | 0.01 | | 0.45 | 0.45 | | | 0.21 | 0.21 | | 0.21 | |
| Clearance Time (s) | | 4.0 | | 4.0 | 4.0 | | | 4.0 | 4.0 | | 4.0 | |
| Vehicle Extension (s) | | 3.0 | | 3.0 | 3.0 | | | 3.0 | 3.0 | | 3.0 | |
| Lane Grp Cap (vph) | | 22 | | 752 | 754 | | | 377 | 330 | | 388 | |
| v/s Ratio Prot | | c0.00 | | 0.21 | c0.21 | | | 0.04 | c0.04 | | 0.02 | |
| v/s Ratio Perm | | | | | | | | | | | | |
| v/c Ratio | | 0.00 | | 0.48 | 0.48 | | | 0.18 | 0.19 | | 0.09 | |
| Uniform Delay, d1 | | 17.7 | | 7.1 | 7.1 | | | 11.8 | 11.9 | | 11.6 | |
| Progression Factor | | 1.00 | | 1.00 | 1.00 | | | 1.00 | 1.00 | | 1.00 | |
| Incremental Delay, d2 | | 0.1 | | 0.5 | 0.5 | | | 0.2 | 0.3 | | 0.1 | |
| Delay (s) | | 17.8 | | 7.5 | 7.6 | | | 12.1 | 12.1 | | 11.7 | |
| Level of Service | | B | | A | A | | | B | B | | B | |
| Approach Delay (s) | | 17.8 | | | 7.6 | | | 12.1 | | | 11.7 | |
| Approach LOS | | B | | | A | | | B | | | B | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | | 9.2 | | | | HCM 2000 Level of Service | | | A | |
| HCM 2000 Volume to Capacity ratio | | | | 0.38 | | | | | | | | |
| Actuated Cycle Length (s) | | | | 36.4 | | | | Sum of lost time (s) | | | 12.0 | |
| Intersection Capacity Utilization | | | | 39.6% | | | | ICU Level of Service | | | A | |
| Analysis Period (min) | | | | 15 | | | | | | | | |

Wisteria Lane GPA Cumulative Plus Project PM
 2: Golden Hill Rd & Dallons Dr/Tractor Ln 12/2/2015

| Lane Group | EBL | EBT | WBT | NBL | NBT | SBL | SBT |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph) | 22 | 142 | 367 | 109 | 375 | 2 | 663 |
| v/c Ratio | 0.05 | 0.19 | 0.66 | 0.45 | 0.28 | 0.01 | 0.50 |
| Control Delay | 8.1 | 6.0 | 16.6 | 18.7 | 8.5 | 10.5 | 12.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.1 | 6.0 | 16.6 | 18.7 | 8.5 | 10.5 | 12.0 |
| Queue Length 50th (ft) | 3 | 10 | 56 | 16 | 21 | 0 | 51 |
| Queue Length 95th (ft) | 14 | 42 | 162 | 71 | 63 | 4 | 133 |
| Internal Link Dist (ft) | | 2366 | 906 | | 877 | | 419 |
| Turn Bay Length (ft) | 140 | | | 180 | | 50 | |
| Base Capacity (vph) | 839 | 1351 | 1019 | 418 | 2232 | 636 | 2266 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.03 | 0.11 | 0.36 | 0.26 | 0.17 | 0.00 | 0.29 |
| Intersection Summary | | | | | | | |

Wisteria Lane GPA
2: Golden Hill Rd & Dallons Dr/Tractor Ln

Cumulative Plus Project PM
12/2/2015

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 20 | 81 | 50 | 221 | 115 | 2 | 100 | 264 | 81 | 2 | 569 | 41 |
| Future Volume (veh/h) | 20 | 81 | 50 | 221 | 115 | 2 | 100 | 264 | 81 | 2 | 569 | 41 |
| Number | 7 | 4 | 14 | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1863 | 1863 | 1900 | 1900 | 1863 | 1900 | 1863 | 1863 | 1900 | 1863 | 1863 | 1900 |
| Adj Flow Rate, veh/h | 22 | 88 | 54 | 240 | 125 | 2 | 109 | 287 | 88 | 2 | 618 | 45 |
| Adj No. of Lanes | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 656 | 406 | 249 | 441 | 201 | 3 | 406 | 1146 | 345 | 536 | 1429 | 104 |
| Arrive On Green | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 | 0.43 |
| Sat Flow, veh/h | 1258 | 1082 | 664 | 782 | 535 | 7 | 769 | 2683 | 807 | 1003 | 3346 | 243 |
| Grp Volume(v), veh/h | 22 | 0 | 142 | 367 | 0 | 0 | 109 | 187 | 188 | 2 | 326 | 337 |
| Grp Sat Flow(s),veh/h/ln | 1258 | 0 | 1746 | 1324 | 0 | 0 | 769 | 1770 | 1720 | 1003 | 1770 | 1820 |
| Q Serve(g_s), s | 0.0 | 0.0 | 2.2 | 7.9 | 0.0 | 0.0 | 4.7 | 2.7 | 2.8 | 0.1 | 5.2 | 5.3 |
| Cycle Q Clear(g_c), s | 0.4 | 0.0 | 2.2 | 10.1 | 0.0 | 0.0 | 10.0 | 2.7 | 2.8 | 2.9 | 5.2 | 5.3 |
| Prop In Lane | 1.00 | | 0.38 | 0.65 | | 0.01 | 1.00 | | 0.47 | 1.00 | | 0.13 |
| Lane Grp Cap(c), veh/h | 656 | 0 | 655 | 644 | 0 | 0 | 406 | 756 | 735 | 536 | 756 | 777 |
| V/C Ratio(X) | 0.03 | 0.00 | 0.22 | 0.57 | 0.00 | 0.00 | 0.27 | 0.25 | 0.26 | 0.00 | 0.43 | 0.43 |
| Avail Cap(c_a), veh/h | 1086 | 0 | 1251 | 1123 | 0 | 0 | 515 | 1006 | 978 | 678 | 1006 | 1034 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 8.0 | 0.0 | 8.6 | 11.3 | 0.0 | 0.0 | 11.6 | 7.4 | 7.5 | 8.4 | 8.1 | 8.1 |
| Incr Delay (d2), s/veh | 0.0 | 0.0 | 0.2 | 0.8 | 0.0 | 0.0 | 0.4 | 0.2 | 0.2 | 0.0 | 0.4 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.2 | 0.0 | 1.1 | 3.7 | 0.0 | 0.0 | 1.0 | 1.3 | 1.3 | 0.0 | 2.6 | 2.7 |
| LnGrp Delay(d),s/veh | 8.1 | 0.0 | 8.8 | 12.1 | 0.0 | 0.0 | 12.0 | 7.6 | 7.6 | 8.4 | 8.5 | 8.5 |
| LnGrp LOS | A | | A | B | | | B | A | A | A | A | A |
| Approach Vol, veh/h | 164 | | | 367 | | | 484 | | | 665 | | |
| Approach Delay, s/veh | 8.7 | | | 12.1 | | | 8.6 | | | 8.5 | | |
| Approach LOS | A | | | B | | | A | | | A | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 2 | | 4 | | 6 | | 8 | | | | | |
| Phs Duration (G+Y+Rc), s | 21.3 | | 19.2 | | 21.3 | | 19.2 | | | | | |
| Change Period (Y+Rc), s | 4.0 | | 4.0 | | 4.0 | | 4.0 | | | | | |
| Max Green Setting (Gmax), s | 23.0 | | 29.0 | | 23.0 | | 29.0 | | | | | |
| Max Q Clear Time (g_c+I1), s | 12.0 | | 4.2 | | 7.3 | | 12.1 | | | | | |
| Green Ext Time (p_c), s | 5.3 | | 3.5 | | 6.6 | | 3.1 | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | | 9.3 | | | | | | | | |
| HCM 2010 LOS | | | | A | | | | | | | | |

Agenda Item No. 1 - Part B 364

Attachment 12

PROOF OF PUBLICATION

LEGAL NEWSPAPER NOTICES

PLANNING COMMISSION
PROJECT NOTICING

Newspaper: The Tribune

Date of Publication: 06/22/16

Meeting Date: 07/12/16
Planning Commission

Project: Mitigated Negative Declaration
Notice of Public Hearing General
Plan Amendment 14-001, Rezone 14-
001, Vesting Tentative Tract 3069 &
Oak Tree Removal 14-010 (Erskine
Wisteria Industrial Expansion general
Plan amendment.

I, Monica C Hollenbeck, employee of the
Community Development Department, Engineering
Division, of the City of El Paso de Robles, do hereby
certify that this notice is a true copy of a published
legal newspaper notice for the above named project.

Signed: Monica C Hollenbeck
Monica C Hollenbeck

**CITY OF EL PASO DE ROBLES
NOTICE OF INTENT TO ADOPT
A MITIGATED NEGATIVE
DECLARATION NOTICE OF PUBLIC
HEARING GENERAL PLAN AMEND-
MENT 14-001, REZONE 14-001, VEST-
ING TENTATIVE TRACT 3069 & OAK
TREE REMOVAL 14-010
(Erskine Wisteria Industrial Expansion
general plan amendment)**

NOTICE IS HEARBY GIVEN that the Plan-
ning Commission of the City of El Paso de
Robles will consider making a recommen-
dation to the City Council to adopt a Mitiga-
ted Negative Declaration in accordance
with the California Environmental Quality
Act and approval of the following project:

Project Title: General Plan Amendment
14-001, Rezone 14-001, Vesting Tentative
Tract 3069 and Oak Tree Removal 14-010
(Erskine Wisteria Industrial Expansion gen-
eral plan amendment)

Applicant: Tom Erskine / Justin Vineyards
& Winery LLC

Project Location: East end of Wisteria
Lane, North of State Route 46 East, Paso
Robles, CA
APN: 025-435-029, 030 & 031

Project Description: This is a proposal to
subdivide three (3) existing parcels, (APNs
025-435-029, 030, and 031) totaling 212
acres into 13 planned industrial (PM-PD)
lots that would total 77.3 acres, and one (1)
134.7 acre residential ag (RA) remainder
lot. Along with the subdivision is a request
to amend the General Plan and Zoning des-
ignations of the 77.3 acres (Lots 1-13), and
rezone lots 9, 10 & 11 of Tract 2778, adja-
cent to proposed Tract 3069.

The Public Review Period for the proposed
Negative Declaration will commence on
June 24, 2016, and end on July 24, 2016.
A public hearing before the Planning Com-
mission, is scheduled to take place on
Tuesday, July 12, 2016, at the hour of 6:30
pm in the Conference Center (First Floor)
at the Paso Robles Library/City Hall, 1000
Spring Street, Paso Robles, California. All
interested parties may appear and be
heard at this hearing.

FINDING

The City of Paso Robles has reviewed the
above project in accordance with the City
of Paso Robles' Rules and Procedures for
the implementation of the California Envi-
ronmental quality Act and has determined
that an Environmental Impact Report need
not be prepared because:

The proposed project will not have a
significant effect on the environment.

Although the proposed project could
have a significant effect on the environ-
ment, there will not be a significant effect in
this case because mitigation measures
have been added to the project as a part of
a Mitigated Negative Declaration.

The Initial Study which provides the basis
for this determination is available at the
City of Paso Robles, Community Develop-
ment Department, 1000 Spring Street, Pa-
so Robles, CA 93446.

NOTICE

The public is invited to provide written com-
ment on the Draft Mitigated Negative Decla-
ration and/or to provide oral comment at
the public hearing noted above. The appro-
priateness of the Draft Negative Declara-
tion will be reconsidered in light of the com-
ments received.

Questions about and comments on the pro-
posed project and Mitigated Negative Decla-
ration may be mailed to the Community
Development Department, 1000 Spring
Street, Paso Robles, CA 93446 or e-mailed
to CDdirector@prcity.com provided that
any comments are received prior to the
time of the Planning Commission hearing.
Should you have any questions about this
project, please call Darren Nash at (805)
237-3970 or send email to dnash@prcity.com.

Darren Nash, Associate Planner
Date June 20, 2016
June 22, 2016

2521121



Attachment 12
CITY OF EL PASO DE ROBLES
"The Pass of the Oaks"

AFFIDAVIT
OF MAIL NOTICES
PLANNING COMMISSION/CITY COUNCIL PROJECT NOTICING

I, Monica Hollenbeck, employee of the City of El Paso de Robles, California, do hereby certify that the mail notices have been processed as required for Erskine Wisteria Industrial Expansion General Plan Amendment – General Plan Amendment 14-001, Rezone 14-001, Vesting Tentative Tract Map VTPM 3069 and Oak Tree Removal 14-005, on this 24th day of June, 2016.

City of El Paso de Robles
Community Development Department
Planning Division

Signed: *Monica C Hollenbeck*
Monica Hollenbeck